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ABSTRACT

Reviewing the current status of women in vocational education, the study determines whether there is a cause-effect relationship between school practices and limited job options for women in the world of work. According to a review and analysis of available data, schools at all levels are operating separate vocational education programs for women. Limiting girls to traditional, female-intensive offerings perpetuates and contributes to restricted job opportunities and lower earnings for women graduates. Although women comprise 55.5 percent of total vocational education enrollments and two-thirds of all secondary vocational enrollments, they are concentrated in non-wage-earning home economics and in health and office occupations, fields in which they are most prevalent in the world of work. Findings related to current status of women in the world of work, of vocational-technical education for females, sexism in society and education, and staff related problems for women in education are tabulated and discussed. Affirmative Action for women in education is reviewed in the light of Federal legislation. Implications for change and recommendations are presented, and an appendix lists availability of regulations and guidelines for Affirmative Action. (MW)

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WOMEN IN VOCATIONAL EDUCATION

Project Baseline Supplemental Report

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ABSTRACT

Women, who comprise 37 percent of the work force, are concentrated in three fields of employment: teaching, health, and office occupations. They earn only 60 percent of the average wages paid to men, despite the fact that they work because of economic need. Women's earnings often determine the difference between poverty and middle incomes for their families. The purpose of this report is to review the current status of women in Vocational Education to determine if there is a cause-effect relationship between school practices and limited job options for women in the world of work.

FINDINGS

According to a review and analysis of available data, schools at all levels are operating separate Vocational Education programs for women. Limiting girls to traditional, female-intensive offerings perpetuates and contributes to restricted job opportunities and lower earnings for women graduates. Although women comprise 55.5 percent of total Vocational Education enrollments and two-thirds of all secondary vocational enrollments, they are concentrated in non-wage-earning home economics and in health and office occupations, fields in which they are most prevalent in the world of work.

Major findings are as follows:

1. Of the 136 U.S. Office of Education instructional titles, women are a majority in only 33 wage-earning course options. Ninety-seven programs have at least 75 percent of one sex or the other.
2. Consumer and homemaking programs, which do not provide job skills, have 25 percent of female enrollment. Occupational home economics, in which two percent of females in Vocational Education are enrolled, leads to low-paying, dead-end jobs.
3. In post-secondary education, women are concentrated either in technical programs of short duration or in health or office occupations.
4. At the college level, 36 percent of all bachelor's degrees granted to women are in education. Women in education at the bachelor's and master's levels are dispersed widely throughout 44 divisions--except educational administration, physical education, driver and safety education, industrial arts, vocational and vocational-technical, and agricultural education. However, women comprise only 14 percent of total doctorates granted in all disciplines, but only 5.7 percent of doctoral degrees granted in industrial arts, vocational, and Vocational-Technical Education in 1970-71.
5. With women faculty limited to 20 percent of the total in higher education and a paucity of women in school administration, it is apparent that women are not being encouraged to prepare for vocational administration.
6. Female teachers and administrators are more prevalent in the lower grades. The higher the grade level, the fewer the women both in the classroom and in administration. Women comprise only 0.01 percent of school superintendents, and there are no

female State directors of Vocational Education.

7. Policy makers in Vocational-Technical Education are overwhelmingly male, with few women elected or appointed to State or National policy and advisory boards.
8. Textbooks, teaching practices, and extra-curricular activities discriminate against girls.
9. Counselors are doing a more effective job in college counseling than [illegible]pational counseling and are reinforcing stereotypes of "appropriate" jobs for women.
10. Few vocational schools make provisions to educate the pregnant teenager who is in need of job skills.

Vocational schools primarily are preparing young women for the traditional role of homemaker rather than wage earner with a wide variety of job options. Yet, seven Federal laws currently guarantee equality of opportunity for women and minorities in education and employment. Sex-segregated occupational programs are in violation of the law and severely limit the educational and career opportunities of women in Vocational Education.

RECOMMENDATIONS

1. USOE guidelines should be disseminated to enforce Federal laws guaranteeing full equality for female students and staff in education.
2. Additional women must be hired to serve as faculty in departments of school administration and Vocational Education.
3. Teacher education institutions should encourage and prepare more women to enter administration, especially the superintendency.
4. National, State, and local policy and advisory boards should have equal representation of women and men.
5. Home economics and industrial arts should be desegregated by actively recruiting both young women and men for classes.
6. Consumer and homemaking courses should have defined performance competencies enabling both men and women to assume the dual role of homemaker-wage earner.
7. Curricula should emphasize career awareness and exploration and cooperative work experience programs.
8. Educational materials should portray women--and men--in non-traditional roles and occupations.
9. Inservice training programs should be developed to create awareness of sex-role-stereotyping among teacher trainers and practicing teachers.
10. Counselors should increase their knowledge and experience of the work world in order to inform female students about the wide range of job opportunities available, particularly in higher paying, male-intensive occupations.
11. School programs for pregnant teenagers should be mandated to provide open-ended occupational training in entry-level skills as well as child care and development.
12. Adequate day care services should be established for learning and earning mothers.

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CURRENT STATUS OF WOMEN IN THE WORLD OF WORK

INTRODUCTION

The mission of public education in American today is to prepare the individual intellectually, socially, and economically for successful participation in society. Within our free enterprise system of democracy, successful economic participation implies the skill to earn a living. In fact, an emerging goal of the school is to provide every high school graduate with a skill for job entry. Education is viewed increasingly as the means to escape poverty and achieve success by working hard, graduating, and getting a good job. The American dream still may be apt for many boys, but it has never applied to girls.

In the past, a woman's success was dependent upon her wisdom in choosing a husband who was able to provide her with financial security. Her contribution was to be a good wife by establishing and maintaining an orderly household replete with good food, which she prepared, clothing, which she purchased or sewed, and the children who were born of the union, whom she reared. Long before the invention of labor-saving household devices, the role of housewife and mother was the only job for most women. In an agrarian world, women worked in the fields beside their husbands, but as unpaid hands and under the same condition as their unpaid jobs as household domestics--contributors to their husband's livelihood. The tacit role of the school was to prepare boys to enter the work world and girls to stay at home.

During the nineteenth century, increasing numbers of women were hired to teach in the public schools. Women who wanted to teach had to accept low wages, because of the limited job options open to them elsewhere. Gradually, the majority of public school teachers were women. With the invention of the telephone and the typewriter, office work, in addition to the homely tasks of preparing and serving food, manufacturing clothing, nursing the sick, and school teaching, was viewed as an appropriate job role for the employment of women. In short, women were admitted to the work place to do labor that was primarily an extention of domestic skills. By 1900, women represented 18.1 percent of the work force, and the steady increase in the percentage of working women continued from then until the present time, as illustrated in Table 1.

During the First World War, women moved into the munitions and armament factories. By 1920, women represented 20 percent of the labor force. World War II provided expanded occupational roles for women who filled the jobs vacated by servicemen in wartime industry such as shipbuilding and aircraft production. At no time, however, did they fill more than five percent of all skilled jobs.[1] The return of servicemen closed off many of the positions of responsibility held by women during the war. However, the growth of new industries following the war opened up new opportunities

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[1] Janice Neipert Hedges and Stephen E. Bemis, "Sex Stereotyping: Its Decline in Skilled Trades," Monthly Labor Review, May, 1974.

TABLE 1
Women in the Labor Force,
Selected Years, 1900-72

Year	Women in labor force (thousands)	Women in labor force as percent of	
		Total labor force	All women of working age
1900	5,114	18.1	20.4
1910	7,889	20.9	25.2
1920	8,430	20.4	23.3
1930	10,679	22.0	24.3
1940	12,845	24.3	25.4
1945	19,270	29.6	35.7
1950	18,412	28.8	33.9
1955	20,584	30.2	35.7
1960	23,272	32.3	37.8
1965	26,232	34.0	39.3
1970	31,560	36.7	43.4
1972	33,320	37.4	43.8

Note--Data for 1900 to 1940 are from decennial censuses and refer to a single date; beginning 1945, data are annual averages.

For 1900 to 1945, data include women 14 years of age and over; beginning 1950, data include women 16 years of age and over.

Labor force data for 1900 to 1930 refer to gainfully employed workers.

Data for 1972 reflect adjustments to 1970 Census benchmarks.

Source: "The Economic Role of Women," reprinted from Economic Report of the President, 1973. Washington: Women's Bureau, Employment Standards Administration, Department of Labor, 1973, p. 91.

for women in manufacturing and services, as well as in such fields as health, data processing, and government. At the same time, science and technology produced labor-saving appliances which eased household chores and freed more women for work outside the home. Women have been responsible for the major growth of the labor force since 1940 and accounted for three-fifths of the increase between 1960 and 1970.[2]

WOMEN IN THE LABOR FORCE TODAY

Today, over 33 million women work in the civilian labor force, women of all ages from 16 to 70, of every race and ethnic group, single, married, divorced, and widowed. By comparison with 1920, these women, with a median age of 36, represent 37 percent of the total labor force.

Women tend to work during two periods of their lives--during youth, when they have completed their education, and in maturity, after their children are grown. Table 2 shows the percentage of women in the labor force by years.

Marital Status and Children

A substantial majority--58 percent of all women workers--are married and living with their husbands. Twenty-three percent have never married and 19 percent are widowed or divorced or separated from their husbands. Of all married women, 42 percent are working. Of all single women, 56 percent are working. Of all women divorced or separated, 62 percent are working, but only 25 percent of all widows are working, since many of them are elderly.[3]

A striking comparison among married women workers is offered between those with a husband present and those without. Almost half of all widows, divorcees, or mothers separated from their husbands with children under six are working, whereas only 30 percent of women with a husband present and children under six are working. Two-thirds of all widows, divorcees, or mothers separated from their husbands with school-age children are working, but only half of all mothers with a husband present and school-age children are working. Thus, 13 million women in the labor force in March 1973 had children under six.[4] At the same time, 8.3 million children,

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2 Isabelle Streidl, "The Composition of the Nation's Labor Force," Speech at the Regional Seminar/Workshop on Women in the World of Work, Technical Education Research Centers, October, 1973, p. 2.

3 Women's Bureau, "Women Workers Today," Washington: Women's Bureau, Employment Standards Administration, U.S. Department of Labor, 1973, p. 2.

4 Ibid.

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TABLE 2

Percent of Women in Labor Force
by Age, 1973

Age	Percent in Labor Force, 1973
16 and over	45
16 and 17 years	39
18 and 19 years	57
20 to 24 years	61
25 to 34 years	50
35 to 44 years	53
45 to 54 years	54
55 to 64 years	41
65 years and over	9
18 to 64 years	52

Source: Women's Bureau, "Women Workers Today," Washington: Women's Bureau, Employment Standards Administration, Department of Labor, 1973, p. 2.

or 13 percent, were in one-parent families.[5]

As for women in the skilled trades, they were as likely as all employed women to be married, less likely to be single, and more likely to be widows or divorcees. About half were wives of blue-collar workers--25 percent married to men who worked in the trades and six percent to nonfarm laborers. About one-fourth were married to men in white-collar occupations. The rest were wives of men in farm or service occupations.[6]

Education and Occupational Distribution of Women

The more education a woman has, the likelier she is to be in the labor force. Seventy percent of all women workers last year had at least a high school education, while one in eight was a college graduate. Half of all women 16 and over who were high school graduates and two-thirds of all those with five years or more of college were working. By contrast, only 22 percent of all women 16 and over with less than an eighth grade education were in the labor force.

The distribution of men and women in the labor force is very different. Most women professionals are teachers, nurses, and other health workers, while men generally work in professions other than teaching or health. Most women are clerical workers, but are less likely than men to be managers or administrators. Almost as many women as men work in factories, but rarely as skilled crafts workers, the occupation of 21 percent of all male workers. While one in five women in the labor force is a service worker, only one of twelve men is similarly employed.[7]

Earnings

Among fully employed women who worked year round, annual earnings in 1972 were only 60 percent of men's earnings: $5,903 for women compared to $10,202 for men. On jobs demanding equal amounts of skill, time, and

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[5] Elizabeth Waldman and Robert Whitmore, "Children of Working Mothers, March, 1973," Monthly Labor Review, May, 1974, p. 50.

[6] Ibid., p. 15.

[7] "Women Workers Today," op. cit., pp. 2-4.

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TABLE 3

Occupational Distribution of Workers
by Sex, 1973

Occupation	% Women	% Men
Managers & administrators	5	13
Private household workers	5	-
Sales workers	7	-
Professional & technical workers	14	14
Operatives	13	19
Service workers outside the home	17	-
Clerical workers	35	7
Nonfarm laborers	-	8
Craft workers	-	21
Other	4	18

Source: "Women Workers Today," Washington: Women's Bureau, Employment Standards Administration, Department of Labor, 1973, p. 5.

effort, substantial differences remain between the earnings received by women and men. Even after adjusting for dissimilarities in training, continuity at work, and education, a differential of about 20 percent remains between the earnings of women and men.[8] The more prestigious the occupational category, the closer women come to narrowing the income gap. Professional and technical working women earned 68 percent of men's incomes by making an average of $8,796 in 1972. However, saleswomen, who tend to be in lower paying retail rather than wholesale selling, earn only 40 percent as much as men, or $4,575.[9] Fully employed women high school graduates earn less than fully employed men with fewer than eight years of school.[10]

The white male was consistently the top wage earner in 1969, with an increasing ratio between years of school completed and median earnings. Salaries ranged from $6,717 for white males with eight years of school or less to a high of $13,436 for white males with five or more years of college. Women consistently earned less than men. In fact, all females with five years or more of college had median earnings commensurate to white males who had not completed high school. Black women earned the least, in fact, half as much as white males. However, the gap narrowed slightly for all female college graduates, particularly black college women. Table 4 illustrates that the more education adults attain, the higher their median earnings, with women invariably earning less than men.

Even more definitive, a comparison can be made of earnings of men and women by occupational groups and years of school completed.

Earnings and Education

The positive relationship between earnings and education is apparent when comparisons are made for women and men for Fiscal Year 1969 with additional comparisons for females by race.

Table 5 illustrates that occupational groups receive different median earnings, with professional and technical workers earning the highest and

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8 "The Economic Role of Women," reprinted from Economic Report of the President, 1973, Washington: Women's Bureau, Employment Standards Administration, U.S. Department of Labor, 1973, p. 106.

9 "Women Workers Today," op. cit., p. 6.

10 Women's Bureau, "Twenty Facts on Women Workers," Washington: Women's Bureau, Employment Standards Administration, U.S. Department of Labor, 1972, p. 2.

TABLE 4

Earnings of Total and White Males and Females, and Negro and Spanish-Origin Females 25 to 64 Years of Age and Years of School Completed: 1969

	Median earnings 0-8 yrs. school	Median earnings 1-3 yrs. high school	Median earnings 4 yrs. high school
Total male	6,368	7,890	8,805
White male	6,717	8,161	8,951
Total female	3,072	3,545	4,186
White female	3,354	3,671	4.212
Black female	2,193	2,881	3,910
Spanish-origin female	2,974	3,471	4,087

	Median earnings 1-3 yrs. college	Median earnings 4 yrs. college	Median earnings 5 yrs. college or more
Total male	9,745	12,507	13,309
White male	9,907	12,674	13,436
Total female	4,824	6,523	8,176
White female	4,810	6,504	8,164
Black female	4,885	6,742	8,478
Spanish-origin female	4,595	5,717	6,837

Source: Bureau of the Census, "Earnings by Occupation and Education," 1970 Census of Population, Washington: Department of Commerce, January, 1973, Tables 1, 2, 7, and 8.

private household service workers receiving the lowest median earnings. Women's median earnings in 1970 as a percentage of men's range from a low of 43 percent for salesworkers to a high of 67 percent for professional and technical workers.

Unfortunately for American women workers, the higher the average earnings for an occupational group, the fewer the number of women who are employed in that group. Women tend to be clustered in those occupations which pay the least. Whereas women are 76 percent of all clerical workers, women average only 64 percent of men's earnings in the same occupations. Conversely, with 21 percent of all men employed as craftsworkers and foremen in 1973, only four percent of women are in the craftsworkers-foremen group, where they make 55 percent of men's earnings. Far worse, household work, in which four percent of all women workers are employed, afforded a full-time, year-round median wage of $1,981 in 1971.[11]

For men, the returns on the investment in education are high in terms of money and status. Women do not obtain returns equal to men's. Female-intensive clerical work, in which 12 percent of the women were college graduates, had median earnings for women of $5,551, whereas men in clerical work, only five percent of whom were college graduates, had median earnings of $8,617. The education and talent of women seriously are underutilized, a waste to them and a loss to society. Women who stay in the labor market continuously earn only two-thirds the amount earned by men in the same occupation. Lower job status for women is accompanied by greater rates of unemployment. Whereas men had a 4.9 percent rate of unemployment in 1972, women experienced an unemployment rate of 6.6 percent.[12] While education assists in equalizing women's position with that of men, the problems of under-pay and underutilization of female talent continue.

Contributions to the Family Income

Women work because of economic need. Two-thirds of all women workers are either in the combined classifications "single, divorced, widowed, or separated" or their husbands earn less than $7,000 a year. Only three percent of all husband-wife families had poverty incomes.[13] Working wives employed full-time, year-round contributed almost two-fifths of the family

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[11] Economic Problems of Women, Hearings before the Joint Economic Committee, Congress of the United States, Ninety-third Congress, First Session, Part I, July 10, 11, and 12, 1973, Washington: U.S. Government Printing Office, 1973, p. 17.

[12] Shirley McCune, "Vocational Education: a Dual System," Inequality in Education, March, 1974, pp. 28-34.

[13] Women's Bureau, "Twenty Facts on Women Workers," op. cit., p. 1.

TABLE 5

Occupational Distribution of Employed Persons by Education, Sex, and Income, 1970

Occupational Groups	High School				College Graduates		Median Income of Year-Round Full-Time Workers*		
	1-3 Years		4 years						
	Percent Men	Women	Men	Women	Percent Men	Percent Women	Men	Women	Women's Earnings as Percent of Men's
Professional, technical and kindred workers	2.8	3.6	7.6	7.1	58.9	77.4	$11,806	$ 7,878	66.7
Managers and proprietors	6.9	2.9	11.4	3.8	20.1	4.8	12,117	6,834	56.4
Salesworkers	5.6	10.2	7.5	8.1	8.6	2.3	9,750	4,188	42.8
Clerical and kindred workers	6.8	25.3	10.0	50.4	4.9	12.1	8,617	5,551	64.4
Craftsmen	25.6	2.4	26.4	1.8	3.3	.4	9,254	5,089	55.0
Operatives	27.3	22.5	20.6	11.4	1.4	.6	7,623	4,510	59.2
Nonfarm Laborers	9.9	1.6	5.3	.8	.5	.1	6,563	4,291	65.4
Farm Laborers & foremen	1.9	.6	.9	.3	.2	.1	3,519	---	
Farmers & farm managers	2.2	.2	2.9	.2	.8	.1	1,260	---	
Service workers excluding private household	10.8	25.4	7.5	14.5	1.4	1.9	6,955	3,953	56.8
Private household service workers	.2	5.2	(1)	1.7	(1)	.3	---	2,101	

[1]Less than one tenth of 1 percent.
Note--Detail may not add to totals because of rounding.
Source: Bureau of the Census, Department of Commerce.

*Source: Economic Problems of Women, Hearings before the Joint Economic Committee, Congress of the United States, Ninety-third Congress, First Session, Part I, July 10, 11, and 12, 1973, Washington: U.S. Government Printing Office, 1973, Table 27, p. 102.

income. Twelve percent of all working wives contributed half or more of the family income. These women often determine the difference between middle and low incomes of families.

As for women who are heads of households, 53 percent were in the labor force in March 1973, two-thirds of them the only wage earner in the family. Two out of five families in poverty are headed by a woman. For the population as a whole, one out of ten families has a woman as head of the household and one of ten working women is likewise the head of the household.[14] At the same time, about 11.5 million children under 18 were in families[15] with the father absent, unemployed, or out of the labor force. Family incomes were better if mothers worked. The median family income in 1972 was $5,750 if mothers worked and $3,495 if they did not.[16]

Women and Poverty

Families with a female head are increasing in our society. Between 1960 and 1972, the numbers of households dependent upon women increased 56 percent, from 9.5 million to 14.8 million.[17] Divorce and separation force many women without wage-earning skills into the primary support role for their children and themselves. Of low-income families, 43 percent are headed by a working woman.[18] Close to two-thirds of all female-headed households include children. Unless the single parent has adequate alimony or pension, she is likely to face financial difficulty. The median income for female-headed families in 1971 was $5,116--less than half the income of male-headed families. A female family head has the additional burden of expenses for child care when she is absent from the home. Whereas one in ten households is headed by a woman, 34 percent were below the low-income level compared to seven percent for male-headed households. In 1971,

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14 Ibid., and Women's Bureau, "Women Workers Today," op. cit., p. 7.

15 The Bureau of the Census provides a definition for "household" and "family." "A household includes all the persons who occupy a group of rooms or a single room which constitutes a housing unit; a family consists of a household head and one or more other persons living in the same household who are related to the head by blood, marriage or adoption."

16 Waldman and Whitmore, op. cit., pp. 52-53.

17 Barbara R. Bergman, "A Policy Agenda for Women's Economic Problems," Testimony at hearings of the Joint Economic Committee on the Economic Problems of Women, July 10, 1973, p. 5.

18 Letty Cottin Pogrebin, "The Working Woman," Ladies Home Journal, May, 1974, p. 82.

30 percent of households headed by a woman received public assistance payments.[19]

In 1972, 9.2 million, or 14 percent, of all children were in families below the low-income level of $4,277 for a non-farm family of four headed by a man and $4,254 if headed by a woman.[20]

The problems of poverty and women are intensified by race. Twenty-seven percent of the females heading households are blacks. For them, the median family income was only $3,645, and 54 percent were below the low-income level.[21] Among black children, the proportion of poor was 71 percent in "mother only" families and 24 percent in two-parent families.[22] More than half of all poor Puerto Rican families are headed by a woman. Divorce and separation among minority women are acute problems.[23]

As for unemployment among women, six percent were unemployed in 1973 compared with four percent of all men. For young women 16 to 19 years, the unemployment rate was 15 percent, but dropped to five percent for those 20 years of age and older. For minority women of all races, 10 percent were unemployed: 34 percent of all minority women 16 to 19 years and eight percent of those 20 years of age and over.[24] Thus, the financial problems of female heads of households are disturbingly high among black and other minority women, and there are no signs of improvement.

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[19] "The Economic Role of Women," op. cit., p. 108.

[20] Waldman and Whitmore, op. cit., p. 55.

[21] "The Economic Role of Women," op. cit.

[22] Waldman and Whitmore, op. cit.

[23] Manpower Report of the President, U.S. Department of Labor, Washington: U.S. Government Printing Office, March, 1973, p. 101.

[24] "Women Workers Today," op. cit., p. 6.

Child Care

At the present time, very little information is available about the current number of child care facilities in this country. The last Nation-wide study on child care arrangements was published in 1968, based upon mothers who had worked in 1964. Such studies have a common finding: most young children receive care in a private home--their own or someone else's, sometimes a relative's, during their mothers' working hours. A survey of day care facilities in 1970 estimated that 1.3 million children were in licensed and unlicensed full-time day care. Child care services range from developmental centers offering a variety of health and social services to "custodial" centers, which vary in size and quality. Unfortunately, there are no firm plans for a Nation-wide survey of child care services.[25]

Women on Welfare

Women without husbands have four possible sources of support: alimony, pensions, welfare, or a job. Those with small children have the complicating factor of child care. While many choose to stay at home, others are forced to stay at home, because of limited day care facilities. The largest group of working-age adults on welfare are the two and one-half million mothers with no able-bodied male present. Federally assisted welfare recipients were distributed as follows:

Children	55.9%
Mothers	16.7%
Aged	14.9%
Blind and disabled	11.7%
Able-bodied fathers	0.9%[26]

Together, mothers and children comprise 73 percent of all welfare recipients. Forty-four percent of the mothers are needed at home for child care or they are disabled or they need extensive rehabilitative treatment and hence are not immediately employable. However, 34 percent are employable, given adequate day care and job training. A study by Brookings Institution of welfare recipients revealed that mothers on welfare tend to have high aspirations and consider work important to their self-esteem. These mothers, in turn, transmit a positive work value to their sons. However, women who find welfare more acceptable also show the lowest work activity. Yet, black women who left the Work Incentive Program (WIN II) without finding a job showed increased acceptability of welfare. Evidently, many black welfare women want to work, but because they have failed so often in their attempts to find a job, they believe they would fail if they tried again.[27]

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[25] Waldman and Whitmore, op. cit., pp. 56-57.

[26] "Welfare Myths vs. Facts," Washington: Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare.

The impact of long term public assistance to the self-concept of the female head of household is extremely destructive. Unfortunately, there is a multiplier effect on other members of the family whose self-concept also is influenced negatively by economic dependence upon welfare, which is viewed generally as a symbol of human failure by the middle class American majority whose work ethic is firmly entrenched. Thus, each generation on welfare is affected adversely not only by financial failure, but also by human failure, and the poverty cycle becomes difficult to break. The human cost to the individual is the most destructive result of welfare in our society.

A recent report, "Women and Poverty," reveals that three-fourths of all persons receiving welfare payments and public assistance are women.[28] Fifteen percent of the mothers are in such low-paying jobs that a welfare supplement is necessary for bare survival. Seven percent are currently in work training programs. Undereducated, but employable, mothers are a wasted human resource. Vocational schools would be in a position to prevent the underutilization of women if training programs were adapted to teach wage-earning competencies to girls and boys alike in occupations affording adequate opportunities and pay.

WOMEN IN THE UNIONS

Women with little education usually seek employment in blue-collar occupations, in service work outside of the home, or as private household workers. The growing concentration of employed women in the white-collar jobs of teaching, office, and health during the second half of the nineteenth century was marked by a concommitant diminishment of men in these fields. Occupations which are role-differentiated as "women's work" traditionally have paid less than "men's work"--regardless of educational requirements. Although women worked in factories beside men during the rise of the Industrial Revolution, they were assigned to the menial, low-paying tasks.

With the development of labor unions to improve economic and working conditions of blue-collar workers, protective legislation was enacted to "protect" women and children from long hours and from unhealthy and unsafe working conditions. Unfortunately, "protective" legislation was in many instances "preventive" legislation which successfully closed off many avenues of blue-collar employment to women. At the turn of the century, feminists joined forces with labor to improve conditions for both men and women.

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27 Leonard Goodwin, "Do the Poor Want to Work?" Poor People and Public Policy, Brookings Research Report 129, Washington: The Brookings Institution, 1972, p. 6.

28 Judith Frutig, "Her Children Go Hungry One Week Every Month," The Christian Science Monitor, June 26, 1974, p. 4.

Historically, women in the trade unions have been discriminated against in three important categories: in earnings; in opportunities for advancement, especially through apprenticeship programs; and in representation among union policy makers. Although women members benefitted from the economic gains achieved by union bargainers, they traditionally have been in lower paying positions with resultant lower annual wages.

A study by the Bureau of the Census revealed that union workers earn higher wages than non-union workers in most of the occupations which permit comparisons. Between union and non-union workers employed at any time during the year, the difference in median earnings was $1,540 for women and $1,517 for men. Union women received lower wages, however, than union men in all comparable occupations in the study.[29] The income disparity between union women and union men is lessened among union members, as these figures indicate. The median income of women union members was about 80 percent higher than non-union working women among private wage and salary workers in 1970, including blue-collar workers, white-collar workers, and service workers (including private household workers). The comparable advantage for male union members was only 30 percent. However, the earnings gap between men and women was narrower among white-collar and service union members than among union members who were blue-collar workers in 1970.

- White-collar union women earned 80 percent less than union men;
- White-collar non-union women earned 180 percent less than non-union men;
- Service worker union women earned 70 percent less than service worker union men;
- Service worker non-union women earned 120 percent less than service worker non-union men;
- Blue-collar union women earned 100 percent less than blue-collar union men;
- Blue-collar non-union women earned 90 percent less than blue-collar non-union men.

Thus, while the earnings differential between union women and men in 1970 was less among white-collar and service workers, the differential between union blue-collar women and men was higher than the earnings differential between non-union blue-collar women and men.[30]

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29 Lucretia M. Dewey, "Women in Labor Unions," Monthly Labor Review, February, 1971, p. 44.

30 Edna E. Raphael, "Working Women and their Membership in Labor Unions," Monthly Labor Review, May, 1974, pp. 27-28.

Trade union women represent 21 percent of organized labor, a small population compared to the number of women in the labor force, 37 percent in 1970.[31] Yet, for all private wage and salary workers and for blue-collar workers, the declines in union membership were greater among women than among men. Membership rose by 0.4 percent among women service workers, while it declined most among operatives, with an eight percent loss. One of seven American women workers is a union member compared to three of ten men workers. Table 6, based on statistics from the U.S. Department of Labor presented by U.S. News and World Report, November 13, 1972, shows the size and percentage of female membership among the ten trade unions with the largest aggregation of women.

Statistics provided by the United Automobile Workers and shown in Table 7 suggest the problems many women unionists face in male-dominated labor organizations. Estimated UAW women members comprise approximately 15 percent of the total membership and hold one-eighth of the international union executive positions; 16 percent of the local union elected positions--six percent of the presidents and vice-presidents and 27 percent of the secretaries; seven percent of the collective bargaining positions; two percent of international representatives; and seven percent of the convention delegates. It should be noted that in labor organizations the power positions tend to be in collective bargaining, where women are seriously under-represented, and on international policy boards, where women are only 2.5 percent of the appointees.

Until recently, union women generally were not allied with the women's rights movement. When the Equal Rights Amendment was under consideration by Congress in 1971, Myra Wolfgang, Vice-President, Hotel, Restaurant Employees, and Bartenders International Union, appeared before the Judiciary Committee of the House of Representatives to oppose ERA, while Olga Madar, Vice-President, United Automobile Workers, supported the proposed amendment. Despite some differences between labor and the women's movement, trade union women have been organizing their forces for a stronger voice in unions and on the job, as evidenced by the increasing numbers of women's conferences being sponsored by labor organizations, including the Communications Workers of America, the International Union of Electrical Workers, and the United Automobile Workers. Their primary concerns are the earnings and opportunity gap between men and women and the political powerlessness of women workers. Women comprise less than one percent of the registrants in apprenticeship training programs and four percent of all crafts workers and supervisory positions, despite being 21 percent of the total membership.[32]

Spokeswomen for four of these organizations reflect a variety of opinions. Myra Wolfgang describes the present status of women in the union as:

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31 "Women Workers: Gaining Power, Seeking More," U.S. News and World Report, November 13, 1972, p. 104.

32 Ibid.

TABLE 6

Ten Unions with the Largest Aggregation of Women

Unions	Total Women	Women as Percentage of all Union Members
1. Ladies' Garment Workers	353,870	80
2. Clothing Workers	289,500	75
3. Electrical Workers (IBEW)	276,510	30
4. Teamsters	255,000	14
5. Communications Workers	231,860	55
6. Automobile Workers	193,130	13
7. Service Employees	152,250	35
8. State & County Employees	146,680	33
9. Steelworkers	120,000	10
10. Electrical Workers (IUE)	105,000	35

Source: "Women Workers: Gaining Power, Seeking More," U.S. News and World Report, November 13, 1972, p. 104.

TABLE 7

Aggregation of Members in UAW Jurisdiction by Companies and by Sex in 1972 and 1973*

Name of Company	Total Members	Males	Female	Percent Females
General Motors (Hourly) (1972)	415,000	353,541	61,459	14.8
Ford Motors (Hourly) (1972)	163,000	146,500	16,500	10.1
Chrysler (Incl. Salary) (1972)	127,000	115,184	11,816	9.3
Dana (Incl. Salary) (1973)	8,879 (Approx.)	7,905	974	11.0
Eltra (Hourly) (1973)	5,100	3,404	1,696	33.2
Hoover (Hourly) (1973)	2,088	1,113	975	46.7
	721,067	627,647	93,420	12.9

*Incomplete aggregation

Source: United Automobile Workers, as of January 30, 1974.

> . . . the same as the opportunities for women everywhere. No union constitution bars women, but that is not to say there is no discrimination. Changes won't flow from the union, but from the society. Certain labor standards are desirable. It is not desirable for women not to have standards. I favor retaining standards for women until men are included.
>
> If the goal is desirable to increase the number of women in industrial employment, then we must end discrimination by enforcing the laws we now have. Society must also direct its attention to child care by tripartite efforts of workers, industry, and government.[33]

Mozell McNorriell, Vice-President, International Union, American Federation of State, County, and Municipal Employees, describes areas of discrimination against women in the union:

> . . . All the court officers are male. There is limited opportunity for upward promotion; yet our membership is 50 percent male, 50 percent female. Women won't file civil rights complaints because they fear reprisal in promotions later on, but we are using the grievance procedure in cases of sex discrimination. There is one women on the 21-member policy board of the international union and a paid staff of two women and 15 men. However, it is difficult to get women to vote for other women as officers.
>
> Child care is not a problem for public employees. Sometimes clerical and professional workers see things differently from other workers.[34]

Olga Madar, Vice-President, International Union, United Automobile Workers, summarizes the issues as follows:

> Women in unions are on the ascendency. Women are under-represented in elected and appointive positions. Women are active, but they are under-represented in power positions and in collective bargaining. Yet, Unions with women in the majority carry on collective bargaining well.

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33 Interview with Myra Wolfgang, Secretary-Treasurer, Hotel, Motel, Restaurant Employees, Cooks, and Bartenders Union, Local 24, and Vice-President, Hotel, Restaurant Employees, and Bartenders International Union, Detroit, Michigan, June 18, 1974.

34 Interview with Mozell McNorriell, Vice-President, International Union, American Federation of State, County, and Municipal Employees, AFL-CIO, Detroit, Michigan, June 18, 1974.

> Women ought to have more opportunity for employment in the industrial sector. Women were in the plants during World War II in every classification. There are no inappropriate areas of employment. If working conditions are bad for a female they are bad for any person. We ought to have good working conditions for all.
>
> Apprenticeship programs are getting better, but we need to open up training opportunities, apprenticeship, and skilled trades to include more women . . . Women haven't learned how to be politicians, but we are beginning to put down the notion that women won't vote for another woman . . . We ought to have comprehensive day care facilities financed by communities, industries, and government. Women were the first activists, but they didn't look at cultural attitudes. They accepted their subservient role outside of the workplace. The Women's Lib movement has done more than the activists and militant union women of yesteryear to take a realistic look at cultural attitudes shared by men and women.[35]

Gloria Johnson, Director of Education and Women's Activities, International Union of Electrical, Radio, and Machine Workers, also addresses attitudinal problems:

> My own feeling is that there are strong similarities to attitudes that blacks used to have: a fear of losing, or rejection, if a woman does step forward to take an active role; a feeling of 'I've never done it before so I might fail'; a feeling that one's husband might object; and always, of course, the problem of time, because of domestic responsibilities as well as work.
>
> But, judging by an IUE survey, these attitudes are changing. In our opinion, we have women in what we call social-action programs, we have women's committees in the locals, and the districts are beginning to have their own women's conferences.[36]

One of the current developments among trade union women is the formation of a coalition which merged more than 3,000 women members of 58

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35 Interview with Olga Madar, Vice-President, International Union, United Automobile Workers; Director of Conservation and Resource Development; Recreation and Leisure Time Activities; Consumer Affairs Department; Technical Office Professional Services Department, Detroit, Michigan, July 2, 1974.

36 "Women Workers: Gaining Power, Seeking More," op.cit., p. 106.

unions in late March 1974 into a National organization, the Coalition of Labor Union Women. Its purpose is to work for women's rights within trade unions. The objectives are the following:

1. Positive action by unions against sex discrimination in pay, hiring, job classification, and promotion;
2. A livable minimum wage, improved medical and pension benefits, improved health and safety laws, and better enforcement of these laws;
3. Increased participation of women in union affairs, particularly in policy-making positions;
4. Increased union efforts to organize women workers;
5. Support of legislation for child care;
6. Legislation to extend to all workers protective statutes such as maximum hours limitations, breaks in the workday, and seating of workers; and
7. Mass action in behalf of the Equal Rights Amendment.[37]

The coalition is headed by Olga Madar, President; Addie Wyatt, Director, Women's Affairs, Amalgamated Meat Cutters and Butcher Workers Union, Vice President; and Gloria Johnson of IUE, Treasurer. The Statement of Purpose is as follows:

> Of the 34 million women in the work force--little more than 4 million women are members of unions. It is imperative that within the framework of the union movement we take aggressive steps to more effectively address ourselves to the critical needs of 30 million unorganized sisters and to make our unions more responsive to the needs of all women, especially the needs of minority women who have traditionally been singled out for particularly blatant oppression.
>
> Women unionists work in almost every industry, in almost every part of the country. Despite their geographical, industrial and occupational separations, union women share common concerns and goals.
>
> Full equality of opportunities and rights in the labor force require the full attention of the labor movement . . . and especially, the full attention of women who are part of the labor movement.
>
> The primary purpose of this new National coalition is to unify all union women in a viable organization to determine, first - our common problems and concerns and, second - to develop action programs within the framework of our unions to deal effectively with our

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[37] Raphael, op. cit., p. 33.

> objectives. Through unity of purpose, the Coalition of Labor Union Women will seek to accomplish these goals. We recognize that our struggle goes beyond the borders of this Nation and seek to link up with our working sisters and brothers throughout the world through concrete action of international workers' solidarity.[38]

This process would be simplified if vocational and manpower training programs provided women with basic readiness training in new and growing fields of employment. Upward mobility for women also can be accomplished by increasing the number of women supervisors and apprentices in all skilled trades, thus, ultimately increasing women craftsworkers.

If the trade union women succeed in their efforts to raise the number of women on international union policy boards, they will be in a position to influence pay scales and job opportunities for women, particularly employable welfare mothers, while improving working conditions for men and increasing child care facilities for workers in other areas of employment. Mozell McNorriell had these additional suggestions;

> The schools could do more to enrourage young people to seek more education. High school counselors are not doing the job . . . we need courses in labor history and the union movement in the public schools.

SUMMARY

Over 33 million women, representing 44 percent of all women of working age, comprise 37 percent of the labor force today. The more education a women has, the likelier she is to work outside the home. Women are concentrated in teaching, health, and office occupations in contrast to the broad range of higher paying occupations in which men are distributed. Women's earnings in 1972 were only 60 percent of men's earnings, but the more prestigious the occupation, the closer women came to narrowing the earnings gap. The more education adults attain, the higher their median earnings, although women earn consistently less than men.

Women work because of economic need, contributing two-fifths of the family income and often determining the difference between poverty and middle incomes for their families. Of low-income families, 43 percent are headed by a working woman; of low-income black families, 64 percent are headed by a woman! Two and one-half million women are mothers on welfare, and without the advantages of skill training and child care services they cannot work.

Women trade union members represent 21 percent of organized labor, but they have suffered the same inequities as other American women workers:

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[38] "Statement of Purpose, Structure and Guidelines," adopted by Coalition of Labor Union Women, Founding Conference, Chicago, Illinois, March 23-24, 1974, p. 3.

lesser earnings, fewer opportunities for promotion, especially in apprenticeships; and under-representation in union policy positions. However, the new Coalition of Labor Union Women offers the hope that at last women may succeed in narrowing the inequities in blue-collar and white-collar employment, while gaining opportunities in skilled crafts. If women are to receive equal opportunities for employment, pay, and promotion, vocational programs must prepare young women for a broader range of occupations.

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CURRENT STATUS OF VOCATIONAL-TECHNICAL EDUCATION FOR FEMALES

The primary purpose of this report is to review Vocational-Technical Education for girls and women in the United States and to analyze educational conditions and practices which have an impact upon women in the world of work. The present inequities for women in employment, in pay, and in promotion were identified in the first chapter. This chapter will describe current programs, enrollments, expenditures, and practices in Vocational-Technical Education as well as identify factors which contribute to the present inequities for women in education and in employment, conditions which will continue unless measures are taken to change current educational practices.

ENROLLMENTS IN VOCATIONAL-TECHNICAL EDUCATION

Total secondary school enrollment in 1972 was 14,100,000 of which about 40 percent were enrolled in Vocational Education courses in grades 9-12.[1] A total of 11,602,144 persons were enrolled in secondary, post-secondary, and adult Vocational Education programs in 1972, an increase of 10.5 percent above enrollments in 1971. Between 1970 and 1972, the proportion of female students remained rather constant at about 55.5 percent. While females accounted for almost two-thirds of all secondary vocational enrollments, they comprised 39.9 percent of the post-secondary enrollments and about 46 percent of the adult education enrollments.[2] Table 8 summarizes the distribution of enrollments in Vocational Education by level, target group, and sex for 1970 and 1972.

FEMALE STUDENTS IN VOCATIONAL-TECHNICAL PROGRAMS

Student enrollments in Vocational Education programs show sharp differences in terms of male and female distribution. According to the most recent figures, boys are concentrated in agriculture, technical education, and in trade and industrial programs. Girls are concentrated in home economics, health, and office occupations. However, 92 percent of female enrollments in home economics are in non-wage-earning consumer and homemaking programs.[3] In the two other large occupational programs for females, girls make up 84.7 percent of the health occupations and 76.4 percent of the office occupations. Table 9 shows the distribution and sex of students enrolled in Vocational Education programs in 1972.

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1 Division of Vocational and Technical Education, Trends in Vocational Education Fiscal Year 1971, Washington: Office of Education, U.S. Department of Health, Education, and Welfare, May, 1973, p. 6.

2 Ibid., p. 2.

3 Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, U.S. Department of Health, Education, and Welfare, May 1973, pp. 1-2.

TABLE 8

Distribution of Enrollments in Vocational Education
by Level, Target Group, and Sex, 1970-1972*

	Enrollments		% Distribution		% Female
	1970	1972	1970	1972	1970
Secondary	5,114,451	7,231,648	58.2	62.3	62.6
Postsecondary	1,013,426	1,304,092	11.5	11.2	39.3
Adult	2,666,083	3,066,404	30.3	26.4	46.1
Disadvantaged	(805,384)	(1,616,621)	(9.2)	(13.9)	--
Handicapped	(115,219)	(221,342)	(1.3)	(1.9)	--

*Includes below grade 9.

Source: Division of Vocational and Technical Education, Trends in Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, pp. 5, 7, and 19.

TABLE 9

Vocational Education Distribution of Total Enrollments and Percentage by Sex and Program, 1972*

	Total Enrollments in Vocational Education	% of Total Enrollment	Female Enrollments	Male Enrollments	Percent Female	Percent Male	Females as % of Total
Agriculture	896,460	7.7	48,153	848,307	5.4	94.6	.4
Distribution	640,423	5.5	290,020	350,403	45.3	54.7	2.5
Health	336,652	2.9	285,071	51,581	84.7	15.3	2.4
Home Economics	3,445,698	29.7	3,157,935	287,763	91.6	8.4	27.2
Gainful	(279,966)	(2.4)	(240,948)	(39,018)	(86.1)	(13.9)	(2.0)
Consumer Homemaking	(3,165,732)	(27.3)	(2,916,987)	(248,745)	(92.1)	(7.9)	(25.1)
Office	2,351,878	20.3	1,796,387	555,491	76.4	23.6	15.5
Technical	337,069	2.9	33,006	304,063	9.8	90.2	.3
Trade & Industry	2,397,968	20.7	279,680	2,118,288	11.7	88.3	18.3
Special Programs	1,304,619	11.2	582,715	721,904	44.7	55.3	5.0
Total	11,602,144	100.9	6,422,115	5,180,029	--	--	55.8

*Includes below grade 9.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, p. 1.

Home economics, trade and industrial, and office occupations account for 71 percent of all enrollments in Vocational Education. Home economics is the largest program, with almost 30 percent of all enrollments; trade and industrial enrolls 20.7 percent; and office occupations has 20.3 percent. In terms of total enrollments, the percentage of females in home economics is 27.2 percent. Females in gainful home economics comprise only two percent of the total enrollments in all vocational areas. Thus, 25 percent of all Vocational Education enrollments are females in consumer and homemaking--programs which are not designed to provide wage-earning skills.

Further analysis reveals that the only vocational area where males and females enroll in almost equal numbers is in distributive education--54.7 percent male and 45.3 percent female.

Males comprise 94.6 percent of agricultural students, but their enrollments account for only seven percent of all enrollments in Vocational Education. Males account for 90.2 percent of technical enrollments, but less than three percent of the total. Trade and industrial is 88.3 percent male, but 18 percent of the total vocational enrollment.

Enrollments by specific Office of Education instructional title reflect patterns which limit later earnings for young women by leading to lower-paying jobs than male-intensive programs. Tables 10 through 17 compare male and female enrollments with the total enrollment in each occupational area.

Agriculture

Females comprise only five percent of total enrollments in agriculture. The only course enrolling a sizeable minority of females is ornamental agriculture, with almost 27 percent of the program's enrollments.

Agriculture may become a source of employment for an increased, but limited, number of women in the 1970s. The growth of farming, new methods of food production, and food export will be imperative to meet the critical food shortages of an expanding world population.

Distributive Education

Despite female enrollments of 45 percent in distributive education, no offering has a significant female percentage in terms of total enrollments. However, the following programs enroll a majority of girls, with percentages ranging from 51 percent to 69 percent: apparel and accessories, floristry, food services, general merchandise, home furnishings, and personal services. Of all the vocational-technical areas, distributive education shows the closest similarity between enrollment patterns for males and females.

In January 1973, the trade business was the second largest employer of women, with a total of 6,300,000 working mostly in retail. Women comprise nearly half (5,400,000) of the employees in the retail trade, but only one-fourth (900,000) in the higher paying wholesale trade. This

TABLE 10

Enrollment in Agricultural Programs by Total Enrollment, by Program's Percent of Total, by Sex, by Percent Female, and by Female Percent of Total Enrollment in Agriculture*

OE Instructional Title	Total	Program % of Total	Male	Female	Percent Female	Female % of Total in Agriculture
1. Agricultural Production	564,155	62.9	541,574	22,581	4.0	2.5
2. Agricultural Supplies/ Services	24,237	2.7	23,065	1,172	4.8	.1
3. Agricultural Mechanics	128,795	14.4	127,387	1,408	1.1	.1
4. Agricultural Products	9,439	1.1	8,703	736	7.8	--
5. Agricultural Ornamental Horticulture	56,329	6.3	41,172	15,157	26.9	1.9
6. Agricultural Resources	24,440	2.7	22,577	1,863	7.6	.2
7. Forestry	17,998	2.0	17,471	527	2.9	--
8. Other	71,070	7.9	66,351	4,719	6.6	.5
Total	896,463	100. %	848,300	48,163	--	5.4

*Includes duplicated enrollments and enrollments below grade 9.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, p. 12.

TABLE 11

Enrollment in Distribution Programs by Total Enrollments, by Program Percent of Total, by Sex, by Percent Female, and by Female Percent of Total in Distribution*

OE Instructional Title	Total	Program % of Total	Male	Female	Percent Female	Female % Total Distribution
1. Advertising Services	17,535	2.7	9,602	7,933	45.2	1.2
2. Apparel & Accessories	24,798	3.9	8,195	16,603	66.9	2.6
3. Automotive	9,640	1.5	8,249	1,391	14.4	.2
4. Finance & Credit	27,996	4.4	16,168	11,828	42.2	1.8
5. Floristry	5,231	.8	1,615	3,616	69.1	.6
6. Food Distribution	29,061	4.5	18,162	10,899	37.5	1.7
7. Food Services	34,149	5.3	13,010	21,139	61.9	3.3
8. General Merchandise	204,681	32.0	100,099	104,582	51.1	16.3
9. Hdwe., Bldg. Mts., etc.	5,725	.9	4,449	1,276	22.3	.2
10. Home furnishings	5,874	.9	2,358	3,516	59.8	.5
11. Hotel & Lodgings	12,697	2.0	7,479	5,218	41.1	.8
12. Industrial Marketing	8,627	1.3	6,126	2,501	29.0	.4
13. Insurance	13,132	2.0	9,581	3,551	27.0	.5
14. International Trade	702	.1	458	244	34.7	.0
15. Personal Services	17,836	2.8	8,675	9,161	51.4	1.4
16. Petroleum	4,280	.7	4,080	200	.4	.0
17. Real Estate	82,111	12.8	55,946	26,165	32.0	4.0
18. Recreation & Tourism	12,782	2.0	6,674	6,108	47.8	.9
19. Transportation	12,447	2.0	8,250	4,197	33.7	.0
20. Other	111,119	17.3	61,219	49,900	44.9	7.8
Total	640,423	99.8**	350,395	290,028	--	45.3

*Includes duplicated enrollments and enrollments below grade 9.

**May not equal 100 due to rounding.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, pp. 12-13.

results in an income differential of 60 percent more annual income for men in the field. General merchandising paid average weekly earnings of only $82 per week in January 1973. Women made up two-thirds of the sales-people in department stores, clothing and accessory shops, and drugstores.

The percentage of women in real estate increased from nine percent in 1940 to 36 percent in 1973. Banking, insurance, and credit agencies are expected to expand and should provide new opportunities for women.[4] However, new job openings in retail are expected to be half of what they were in the 1960s, because of automation, self-service stores, and vending machines. Thus, distribution, with enrollments of 290,000 females, should not be viewed as an occupational area which can absorb increasing numbers of women.[5]

Health

Young women comprise 85 percent of total enrollments in health occupations. In only two of 17 programs are they less than a majority. Forty-one percent of students enrolled in dental laboratory technician courses are female and 33 percent in environmental health are female. Within the 17 occupational categories, three programs account for 56 percent of the female enrollments; practical nurse (23 percent), nurse associate degree (17 percent), and nurse's aide (16 percent).

Health care services greatly expanded during the 1960s attributed to population growth, rising affluence, and additional people who could afford improved services, plus an increase in health insurance programs and special public programs like Medicare and Medicaid. In January 1973, about 1,600,000 women were employed in hospitals, where earnings averaged $108 weekly. It appears that health services will continue to expand and provide employment opportunities for increasing numbers of women--and men.[6]

Consumer and Homemaking

Consumer and homemaking is 92 percent female, with no individual course enrolling fewer than 73 percent females (family relations). Yet,

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[4] Elizabeth Waldman and Beverly J. McEaddy, "Where Women Work--an Analysis by Industry and Occupation," Monthly Labor Review, May, 1974, pp. 4-9.

[5] Ibid.

[6] Ibid, pp. 4-5 and 10.

TABLE 12

Enrollment in Health Programs by Total Enrollments, by Program Percent of Total, by Sex, by Percent Female, and b y Female Percent of Total Enrollment in Health*

OE Instructional Title	Total	Program % of Total	Male	Female	% Female	Female % of total in Health
1. Dental Assistant	15,466	4.6	1,060	14,406	93.1	4.3
2. Dental Hygientists	4,754	1.4	170	4,584	96.4	1.4
3. Dental Lab. Technician	2,948	.9	1,727	1,221	41.4	.4
4. Medical Lab. Assistant	10,524	3.1	2,348	8,176	77.7	2.4
5. Other Medical Lab. Tech.	3,156	.9	480	2,676	84.8	.8
6. Nurse Associate Degree	64,931	19.2	6,457	58,474	90.	17.3
7. Practical (Voc) Nurse	82,896	24.6	4,594	78,302	94.4	23.2
8. Nurses' Assistants (Aide)	58,903	17.5	5,595	53,308	90.5	15.8
9. Occupational Therapy	1,504	.4	294	1,210	80.4	.3
10. Physical Therapy	1,501	.4	444	1,057	70.4	.3
11. Radiologic Technology	5,766	1.7	2,223	3,543	61.4	1.0
12. Environmental Health	1,401	.4	937	464	33.1	.1
13. Mental Health Technology	3,898	1.1	1,018	2,880	73.9	.8
14. Inhalation Therapy Tech.	5,759	1.7	2,553	3,206	55.7	.9
15. Medical Assistant	10,326	3.0	787	9,539	92.4	2.8
16. Health Aide	8,438	2.5	1,888	6,550	77.6	1.9
17. Other	54,724	16.2	19,079	35,645	65.1	10.
Total	336,895	99.6**	51,654	285,241	--	84.7

*Includes duplicated enrollments and enrollments below grade 9.

**May not equal 100 due to rounding.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education and Welfare, May, 1973, p. 13.

TABLE 13

Enrollment in Consumer and Homemaking Programs by Total Enrollments, by Program Percent of Total, by Sex, by Percent Female, and by Female Percent of Total Enrollment in Consumer and Homemaking*

OE Instructional Title	Total	Program Percent of Total	Male	Female	Percent Female	Female % of total in Home Economics
1. Child Development	138,589	4.5	5,565	133,024	96.0	4.2
2. Clothing and Textiles	364,659	11.5	7,163	357,496	98.0	11.3
3. Consumer Education	102,055	3.2	20,502	81,553	79.9	2.6
4. Family Relations	190,397	6.0	49,785	140,612	73.8	4.4
5. Food & Nutrition	222,552	7.	30,747	191,805	86.2	6.0
6. Home Management	55,897	1.7	3,999	51,898	92.8	1.6
7. Housing & Home Furn.	105,296	3.3	7,160	98,136	93.2	3.0
8. Other	1,993,980	62.9	125,693	1,868,287	93.7	59.0
Total	3,173,425	100.1**	250,614	2,922,811	92.1	---

*Includes duplicated enrollments and enrollments below grade 9.

**May not equal 100 due to rounding.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education and Welfare, May, 1973, p. 14.

59 percent of the female enrollments are in consumer and homemaking programs at the elementary and junior high school level. Young women in consumer education account for only 2.6 percent of the total. Child development enrolls only four percent and food and nutrition only six percent of the female enrollments.

Gainful Home Economics

While gainful home economics comprises the smallest total enrollment in Vocational Education, it is overwhelmingly female, with enrollment percentages ranging from 75 percent (food management, production, and services) to 95 percent (clothing management, production, and services). In contrast with consumer and homemaking, child care and guidance (25 percent), clothing management, production, and services (20 percent), and food management production and services (21 percent) account for 66 percent of the total enrollments in gainful home economics.

Although these programs provide wage-earning skills, job opportunities in related occupations are mixed. The 6,000,000 women working in hotels and laundries or dry-cleaners earned average wages between $76 and $87 weekly in January 1973. Yet, in food products, the average worker in the malt liquor industry, where seven percent of the employees were women, earned $229 a week.[7]

Office Occupations

The only office occupation in which females are less than a majority is in business data processing systems, which enrolls 51 percent males, and supervisory and administrative management, which is 72 percent male. Stenography, secretarial, and related programs are 96 percent female. The largest female concentrations are in stenography-secretarial (22 percent), typing (21 percent), and filing and office machines (14 percent). It is ironic that within a traditional female program area young women enroll in supportive rather than in management occupations.

The temporary help agencies currently employ an estimated 1,500,000 persons, who are sent out on assignment to fill temporary vacancies in clerical, industrial, or professional jobs. About 70 percent of the jobs are clerical, however, and most temporary clerical workers are women. Yet, the prospects for job expansion during the 1970s and 1980s are good. It

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6 Ibid., pp. 4-5 and 10.

7 Ibid., pp. 10-11.

TABLE 14

Enrollment in Home Economics (Gainful) Programs by Total Enrollment, by Program Percent of Total, by Sex, by Percent Female, and by Female Percent of Total Enrollment in Home Economics (Gainful)*

OE Instructional Title	Total	Program Percent of Total	Male	Female	Percent Female	Female % of Total in Home Economics
1. Care & Guidance of Children	77,158	27.5	5,572	71,586	92.8	25.5
2. Clothing Mgt., Prod., Serv.	59,524	21.2	2,706	56,818	95.4	20.3
3. Food Mgt. Prod., Serv.	77,594	27.7	19,235	58,359	75.2	20.8
4. Home Furn., Equip., Serv.	21,278	7.6	2,580	18,698	87.9	6.7
5. Inst. & Home Mgt. & Sup.	8,061	2.9	868	7,193	79.4	2.6
6. Other	36,648	13.1	8,063	28,585	78.0	10.2
Total	280,263	100.0	39,024	241,239	--	86.1

*Includes duplicated enrollments and enrollments below grade 9.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, p. 14.

TABLE 15

Enrollment in Office Occupations by Total Enrollment, by Program Percent of Total, by Sex, by Percent Female, and by Female Percent of Total Enrollment in Office Occupations*

OE Instructional Title	Total	Program Percent of Total	Male	Female	Percent Female	Female Percent of Total in Office
1. Accounting & Computing	351,861	15.0	141,606	210,255	59.7	8.9
2. Bus. Data Process. Sys.	156,748	6.6	79,985	96,763	49.0	3.3
3. Filing & Office machines	398,226	16.9	70,772	327,454	82.2	13.9
4. Info. Communic. Occup.	23,826	1.0	6,585	17,241	72.4	.7
5. Mtls Support, Trans, etc.	10,288	.4	4,964	5,324	51.7	.2
6. Personnel, Trg. & Related	13,693	.6	5,022	8,671	63.3	.4
7. Steno, Secy & Related	550,686	23.4	21,823	528,863	96.0	22.5
8. Supervisory & Admin. Mgt.	77,730	3.3	56,249	21,481	27.6	.9
9. Typing & Related	628,414	26.7	127,897	500,517	79.6	21.3
10. Other	141,300	6.0	40,664	100,636	71.2	4.3
Total	2,352,772	99.9**	555,567	1,797,205	--	76.4

*Includes duplicated enrollments and enrollments below grade 9.

**May not equal 100 due to rounding.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, pp. 14-15.

is expected that the supply of clerical workers will increase as the participation rate for women in the labor force rises.[8]

A major employer of women is government, which employs 22 percent of all women on non-farm payrolls. According to a 1970 survey by the U.S. Civil Service Commission, of women employed by the Federal government most worked in administrative, clerical, and office service jobs. Approximately 77 percent were in grades GS 1-6. (GS 1-4 are non-professional entry level clerical and support positions and GS-5 is entry level for professional employment.) Thirty-eight percent of women employed by the Federal government were clerical workers, who received average annual salaries of $4,952.75 in 1970.[9] Federal, State, and local governments are likely to continue to be major employers of large numbers of female clericals.

Technical Education

Women are less than ten percent of total enrollments in technical education. Of the 22 instructional titles, only scientific data technology, a relatively new field, has a sizeable number of females, 32 percent of the program enrollment.

There is no reason other than custom to prevent women from enrolling in technical programs. None has weight or strength restrictions. However, at least 17 of the occupations require mathematics and/or science as prerequisites, courses in which fewer young women enroll in secondary schools. Average annual income for entry level positions in 13 technical occupations approaches $8,164.69 (see Table 16). Thus, the technical field is a promising area of employment affording higher than average earnings for women. In view of our expanding technological society, technical skills will be in even greater demand in the future.

Trade and Industrial Education

Females account for only 12 percent of the total enrollment in trade and industrial, although their overall rate of increase has doubled that of men since 1966. Of the 45 programs, only five have female majorities. Cosmetology is 94 percent female; textile production and fabrics is 82 percent female; other personal services is 80 percent female; fabric maintenance services is some 53 percent female; and commercial art occupations is 51 percent female. Yet, women are beginning to enter

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8 Martin J. Gannon, "A profile of the Temporary Help Industry and Its Workers," Monthly Labor Review, May, 1974, pp. 44-45.

9 Waldman and McEaddy, op. cit., pp. 9-10.

TABLE 16

Enrollments in Technical Programs by Total Enrollment, by Program Percent of Total, by Sex, by Percent Female, and by Female Percent of Total Enrollment in Technical (Occupations)*

OE Instructional Title	Total	Program Percent of Total	Male	Female	Percent Female	Female Percent Total Technical
1. Aeronautical Technology	5,888	1.7	5,062	826	14.0	.2
2. Architectural Technology	14,144	4.2	12,993	1,151	8.1	.3
3. Automotive Technology	7,453	2.2	7,393	60	.8	--
4. Chemical Technology	5,355	1.6	4 273	1,082	20.2	.3
5. Civil Technology	20,113	6.0	19,314	799	4.0	.2
6. Electrical Technology	15,742	4.7	15,520	222	1.4	.1
7. Electronics Technology	64,440	19.1	63,090	1,350	2.1	.4-
8. Electromechanical Tech.	4,463	1.3	4,387	76	1.7	--
9. Environ, Control Tech.	4,634	1.4	4,424	210	4.5	.1
10. Industrial Technology	11,706	3.5	10,563	1,143	9.8	.3
11. Instrumentation Tech.	3,084	.9	3,003	81	2.6	.1
12. Mechanical Technology	26,395	7.8	25,490	905	3.4	.3
13. Metallurgical Technology	1,742	.5	1,718	24	1.3	--
14. Scientific Data Technology	16,948	5.0	11,551	5,397	31.8	1.6
15. Commercial Pilot Training	5,884	1.7	5,495	389	6.6	.1
16. Fire & Safety Technology	8,826	2.6	8,748	78	.9	--
17. Forestry Technology	2,504	.7	2,416	88	3.5	-.1
18. Oceanographic Technology	1,872	.5	1,712	160	8.5	.1
19. Police Science Technology	43,863	13.0	39,683	4,180	9.5	1.2
20. Air Pollution Technology	1,173	.3	1,106	67	5.7	--
21. Water & Waste Water Tech.	1,418	.4	1,230	188	13.2	.1
22. Other	69,493	20.6	54,962	14,531	20.9	4.3
Total	337,140	99.7**	304,133	33,007	--	9.8

*Includes duplicated enrollments and enrollments below grade 9.

**May not equal 100 due to rounding.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, p. 15.

TABLE 17

Enrollments in Trade and Industrial Programs by Total Enrollments, by Program Percent of Total, by Sex, by Percent Female, and by Female Percent of Total in Trade and Industrial (Occupations)*

OE Instructional Title	Total	Program Percent of Total	Male	Female	Percent Female	Female Percent of Total in Trade & Ind.
1. Air Conditioning	67,620	2.8	64,956	2,664	4.0	.1
2. Appliance Repair	17,472	.7	16,965	507	3.0	--
3. Body & Fender, Auto	57,284	2.4	56,202	1,082	.9	--
4. Mechanics, Auto	228,364	9.5	223,065	5,299	2.3	.2
5. Other Automotive	39,522	1.7	37,882	1,640	4.1	.1
6. Aviation Occup.	31,780	1.3	29,593	2,187	6.9	.1
7. Blueprint Reading	12,842	.5	12,199	643	5.0	--
8. Business Machine Maint.	3,326	.1	3,180	146	4.4	--
9. Commercial Art Occup.	31,445	1.3	15,679	15,766	50.1	.6
10. Commercial Fishery Occup.	3,203	.1	2,498	705	22.0	--
11. Commercial Photog. Occup.	14,612	.6	10,856	3,756	25.7	.1
12. Carpentry	95,706	4.0	94,255	1,451	1.5	.1
13. Electricity	60,791	2.6	60,201	590	1.0	--
14. Masonry	29,992	1.3	29,756	236	.8	--
15. Plumbing & Pipe Fitting	37,311	1.6	37,277	34	.1	--
16. Other Constr. & Maint.	79,623	3.3	78,057	1,566	2.0	.1
17. Custodial Services	16,267	.7	13,720	2,547	15.7	.1
18. Diesel Machanic	13,611	.6	13,426	185	1.4	--
19. Drafting Occup.	126,750	5.3	119,858	6,892	5.4	.3
20. Electrical Occup.	81,493	3.4	80,584	909	1.1	--
21. Electronic Occup.	97,936	4.1	93,524	4,412	4.5	.2
22. Fabric Maint. Services	5,939	.2	2,797	3,142	52.9	.1
23. Formanship, Super., & Mgt. Devel.	120,820	5.0	98,258	22,562	18.7	.9
24. Graphic Arts Occup.	68,562	2.9	60,272	8,290	12.1	.3
25. Industrial Atomic Energy	157	.0	120	37	23.6	--
26. Instr. Maint. & Repair	3,045	.1	2,938	107	3.5	--
27. Maritime Occup.	6,755	.3	6,553	202	3.0	--
28. Metalworking Occup.	291,662	12.2	288,581	3,081	1.0	.1
29. Metallurgy Occup.	5,160	.2	5,117	43	.8	--
30. Barbering	3,974	.2	3,313	661	16.6	--
31. Cosmetology	48,810	2.0	2,940	45,870	94.0	1.9

TABLE 17--Continued

OE Instructional Title	Total	Program Percent of Total	Male	Female	Percent Female	Female Percent of Total in Trade & Ind.
32. Other Personal Services	13,356	.6	2,717	10,639	79.7	.4
33. Plastics Occup.	5,116	.2	3,963	1,153	22.5	--
34. Fireman, Training	159,307	6.6	155,986	3,321	2.1	.1
35. Law Enforcement Trg.	74,801	3.1	68,858	5,943	7.9	.2
36. Other Public Services	58,571	2.4	36,088	22,483	3.8	.9
37. Quantity Food Occup.	7,459	1.6	23,365	14,094	37.6	.6
38. Refrigeration	11,198	.5	10,384	814	7.3	--
39. Small Engine Repair	26,045	1.1	25,440	605	2.3	--
40. Sta. Energy Sources Occup.	7,502	.3	7,228	274	3.7	--
41. Textile Prod. & Fabric	51,238	2.1	9,028	42,210	82.4	1.8
42. Leather Working	2,756	.1	2,283	473	17.2	--
43. Upholstering	16,549	.7	8,944	7,605	46.0	.3
44. Woodworking	84,709	3.6	79,336	5,373	6.3	.2
45. Other	146,421	6.1	119,110	27,311	18.7	1.1
Total	2,396,862	100.0	2,117,352	279,510	--	11.7

*Includes duplicated enrollments and enrollments below grade 9.

Source: Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972. Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, pp. 16 and 17.

nontraditional occupational programs. In 1973, over 500 women were enrolled in air conditioning, appliance repair, auto body and fender repair, auto mechanics, aviation occupations, carpentry, electricity construction and maintenance, electrical occupations, electronic occupations, metalworking occupations, small engine repair, and woodworking.[10]

Manufacturing employed 1,100,000 workers, mostly men, in January 1973. Unfortunately, there has been little change in the employment of women in manufacturing, where 90 percent are working either as semi-skilled operatives or in white-collar clerical jobs. Nearly three-fifths of women work in nondurable goods as assemblers, checkers, examiners and inspectors, sewers and stitchers. Large proportions of women are employed in textile mills, apparel and related items, and food and related items. However, increased automation has curtailed job expansion.[11]

Some 30 skilled trades (listed on page 43) employed at least 1,000 workers and at least doubled the number of women in the decade between 1960 and 1970.[12]

In 1972, 5,500,000 women were 28 percent of the total employees in the skilled trades, but most were concentrated in less skilled, lower paying jobs. In January 1973, their average weekly earnings were less than $100. The apparel industry, in which 81 percent of the employees were women, paid average weekly salaries of only $93, whereas the average salary for all manufacturing workers was $159 a week.[13]

Skilled jobs in manufacturing, construction, and industry offer economic advantages from which few women to date have benefitted. Apprenticeship programs provide job entrants with two to four years of on-the-job training and classroom instruction together with paid employment. Apprentices also receive regular pay increases, paid vacations, holidays, sick leave, and workmen's compensation.

The skilled trades would afford qualified women the opportunity to break out of the confinement of female-intensive occupations for more

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10 Janice Neipert Hedges and Stephen E. Bemis, "Sex Stereotyping: Its Decline in Skilled Trades," Monthly Labor Review, May, 1974, pp. 16 and 20.

11 Waldman and McEaddy, op. cit., pp. 5-8 and 12.

12 Hedges and Bemis, op. cit., 16.

13 Ibid., p. 18.

Skilled Trade	Number of Women Employed, 1970	Women as Percent of Total	
		1960	1970
Transportation, Communications and other public utilities	5676	1.2	3.7
Brickmasons and Stonemasons	2049	.5	1.3
Bulldozer Operators	1151	---	1.3
Cabinetmakers	3429	1.3	5.1
Carpenters	11059	.4	1.3
Crane Derrick and Hoist Operators	1952	.5	1.3
Electricians	8646	.7	1.8
Excavating, Grading, Road Machine Operators-except Bulldozers	2513	.4	1.1
Furniture and Wood Finishers	3600	3.5	16.9
Inspectors, Scalers, Graders Log and Lumber	1877	3.9	11.0
Job and Die Setters, Metal	2221	.6	2.6
Mechanics and Repairers	49349	.9	2.0
Air Conditioning, Heating and Refrigeration	1065	.2	.9
Aircraft	4013	1.5	2.9
Automobile Body Repairers	1332	---	1.2
Automobile Mechanics	11130	.4	1.4
Household Appliance and Accessory Insulators and Mechanics	2550	---	2.1
Radio and Television	5032	1.7	3.7
Molders, Metal	5757	2.9	10.6
Painters, Construction and Maintenance	13386	1.9	4.1
Pattern and Model Makers except paper	1858	1.6	4.8
Plumbers and Pipefitters	4110	.3	1.1
Shoe Repairers	6359	6.7	20.3
Stationary Engineers	2472	.5	1.4
Tool and Die Makers	4197	.6	2.1

satisfying kinds of work. In contrast to the controlled environment of many factory jobs and clerical jobs in manufacturing, the skilled trades offer more independence and freedom, including freedom to move about on the job, and a chance to develop individual ways of working. For women who like to work with their hands, many of these jobs should provide the opportunity for the production of a finished product, a self-fulfilling achievement for the tradesperson.[14]

Unfortunately, women have been discouraged from entering apprenticeship programs and jobs in industry. Physical requirements that are often higher than the job actually demands prevent women from being hired. Such artificial barriers to employment against women and minorities are prohibited by both the Office of Federal Contract Compliance under Executive Order 11375 and the Equal Employment Opportunity Commission. The U.S. Department of Labor has established levels of strength required in many occupations. Yet, not enough research has been completed on the ability of the average woman or man to meet these requirements. In many trades, the physical demands are no higher than for housework; in others, the requirements are within the limitations of some women and beyond the capability of some men. The continuing development of labor-saving equipment probably will reduce many of the requirements now in effect.[15]

Manufacturing will offer opportunities to additional workers during the 1970s, particularly in industries producing durable goods such as machinery, rubber and plastic products, and instruments. These have been male-dominated industries. However, the number of women in fabricated metal products, non-electrical machinery, electrical equipment and supplies, transportation equipment, instruments and related products, and miscellaneous manufacturing has increased slightly in the past ten years. For women with minimal educational attainment, manufacturing may offer many semi-skilled jobs.[16] For women with a high school diploma or the equivalent, the skilled trades should provide improved job opportunities once sex-stereotyping in employment decreases. In light of current projections of the growth rate and the extent of job replacement in manufacturing and industry, some 400,000 jobs a year will be available between now and 1985. Women who are trained and qualified should be in a good position to receive an equal share of the employment opportunities available in trades and industry.[17]

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14 Ibid., p. 19.

15 Ibid.

16 Waldman and McEaddy, op. cit., pp. 5-6 and 12.

17 Hedges and Bemis, op. cit., pp. 19 and 21.

Implications of Vocational-Technical Education Enrollments

Of the 136 Office of Education instructional titles, girls comprise a majority of enrollments in only 48 occupational areas. Of the eight vocational-technical programs, girls are concentrated in four--health, consumer and homemaking, gainful home economics, and office. Only 41 of the Office of Education instructional titles are offered within these four programs. Since eight of the titles are non-wage-earning, girls who enroll in female-intensive vocational programs are limited to 33 wage-earning course options. By contrast, boys who enroll in vocational programs traditionally viewed as male-intensive have 95 options. The bar graph in Figure 1 illustrates the limited program options available to young women in Vocational-Technical Education.

Thus, boys have three times the options within male-intensive programs as girls have in female-intensive programs. However, within these programs the majority of females are concentrated in 29 instructional courses while boys are concentrated in 84.

Of the 8,436,412 total enrollments in wage-earning programs in 1972, females accounted for 42 percent. In non-wage-earning consumer and homemaking, the largest secondary vocational program, specialized courses like child development, consumer education, and food and nutrition enrolled only 406,382, or six percent, of the females and 56,814, or one percent, of the males in 1972.

Limited educational options for girls, whether by subtle societal conditioning or overt discriminatory educational practices, lead to fewer opportunities for women in the world of work. According to 1970 Bureau of Census tabulations, 50 percent of employed women are concentrated in 21 occupations while 50 percent of employed males are spread throughout 65 of the occupations listed in 1969.

Teachers and Enrollments

Not only are girls clustered in a much narrower range of vocational-technical courses than boys, as a group girls may have less opportunity for instruction from teachers, because the vocational areas in which girls are in the majority have a higher teacher/student ratio than the areas in which boys predominate.

As Table 18 suggests, the 4,515,896 male enrollments in 1972 were in programs which had an average of 40.6 students per teacher, whereas the 5,890,252 females were likely to be enrolled in programs with an average of 55.2 students per teacher.[18] The range is from 20 students per teacher in technical programs to 91 per teacher in consumer and homemaking, with an average of 48 students per teacher in Vocational Education in 1972.

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18 "Summary Data Fiscal Year 1972," op. cit., p. 2.

FIGURE 1

Wage-Earning Vocational-Technical Programs, 1972

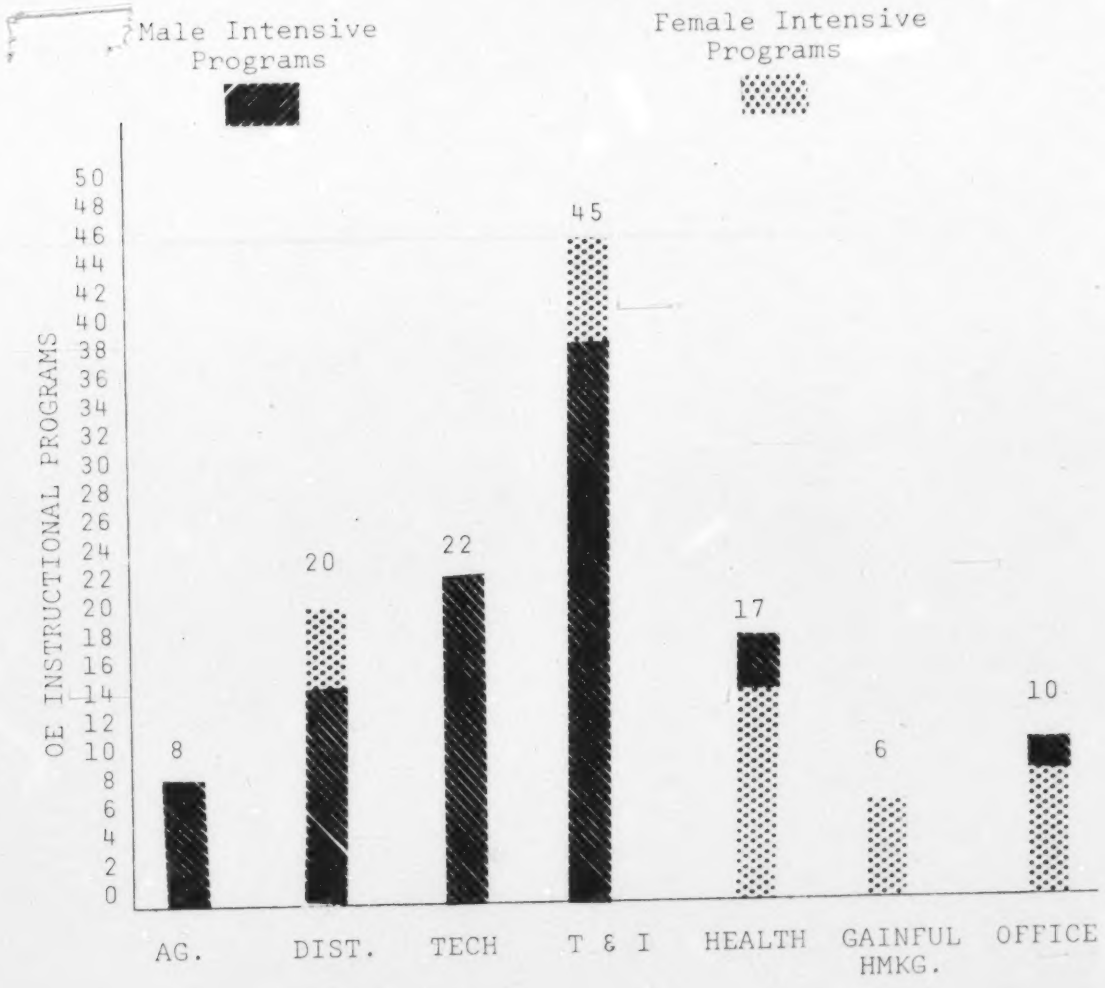

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TABLE 18

Vocational Education Programs Percentage Distribution of Enrollment by Sex, by Total Number of Teachers, by Average Teachers per Student, and by Teachers per Male and Female Enrollments in 1972*

Occupational Areas	Percent Male**	Percent Female**	Total Teachers***	Average Students per Teacher***	Total Teachers per male enrollments**	Total Teachers per female enrollments*
Agriculture	94.6	5.4	13,270	49.2	12,553.4	716.6
Distribution	54.7	45.3	13,795	67.5	7,545.9	6,249.1
Health	15.3	84.7	14,552	23.1	2,226.4	12,325.5
Consumer & Homemaking	7.9	92.1	34,820	90.9	2,751.0	32,069.0
Home Economics - Gainful	13.9	86.1	6,727	82.9	935.0	5,792.0
Office	23.6	76.4	52,662	44.6	12,428.3	40,233.7
Technical	90.2	9.8	16,820	20.0	15,171.6	1,648.4
Trades & Industry	88.3	12.2	65,105	36.8	57,487.7	7,617.3
Total	AV. 44.6	AV. 55.4	217,751	AV. 47.8	111,099.4	106,651.6

*Includes unduplicated enrollments and enrollments below grade 9.

Source: **Division of Vocational and Technical Education, Trends in Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, June, 1973, p. 7.

***Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, p. 3.

Although these are gross estimates, it is possible that girls receive less individualized instruction in traditional programs.

EXPENDITURES IN VOCATIONAL EDUCATION

Table 19 summarizes expenditures, Federal expenditures, per student costs, and percentage of total enrollments at the secondary, post-secondary, and adult levels. Post-secondary education has the highest per student cost. The thirteen percent of total vocational enrollments in post-secondary education, which has the lowest percentage of females, has the highest per student expenditures. Female students are receiving the short end of the dollar.

Unfortunately, total expenditures for Vocational Education are not maintained separately for each program by all States, but in those seven States for which such data are available, males receive a greater percentage of total expenditures than females, as illustrated in Table 20. The seven States which are included in these data are Idaho, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, and Virginia.

Whereas female students averaged almost 52 percent of the total average enrollments in the seven States which supplied the information, expenditures for their education were 37 percent of the total expenditure. Males, who comprised 48 percent of the enrollments, received 63.4 percent of the dollars. It should be noted, however, that this pattern of expenditures indicates a trend rather than evidence that expenditures for males are in fact higher than for females throughout the 50 States.

Limited spending not only restricts the educational opportunities for young women, but also reflects flagrant disregard of Title IX of the 1972 Education Amendments, which states:

> No person . . . shall, on the basis of sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.

Ninety-seven of the OE instructional titles have at least 75 percent of one sex or the other. Almost half had enrollments that were 90 percent one sex or the other. Thus, the enrollment patterns of Vocational Education programs in 1972 reflect serious segregation of females and males in direct violation of the law. This problem is further complicated by discrepancies which may exist between expenditures for male and female students. Although data are not available, it may be safe to conclude that since boys are enrolled in courses that are more costly to operate, they are receiving an added advantage.

TABLE 19

Comparison of Total, Federal Expenditures, Percentage of Expenditure, Per Student Costs, and Enrollments for the Three Levels of Vocational Education, 1972*

Level	Total Expenditure	Federal Expenditure	Federal % of Total	Per Student Cost	% Total Voc. Ed. Expense	% Total Voc. Ed. Enrollment
Secondary	$1,744,002,000	$294,184,000	37	$310.47	65.7	56.3
Post-Secondary	701,236,000	122,311,000	74	538.15	26.4	13.1
Adult	197,602,000	43,966,000	90.5	64.49	7.4	30.7

*Does not include Below Grade 9.

Source: Arthur M. Lee and Robert Sartin, Learning A Living Across the Nation, Project Baseline, Second National Report, Vol. 2, Flagstaff: Northern Arizona University, November, 1973, p. 118.

TABLE 20

Total Federal, State, and Local Vocational Education Expenditures for Seven States by Occupational Areas for Females by Percent of Female Enrollments for 1972*

Occupational Areas	Total Enrollment	Female Enrollment	Percent Female	Total expenditure	Percent of total expenditure	Per Student Cost	Total Female Expenditures Based on per Unit
Agriculture	90,076***	1,823***	1.9***	$14,312,748**	16.9**	$145.93**	$ 226,030.39**
Distributive Education	75,486	35,728	47.3	6,586,309	7.8	87.25	3,117,268.00
Health Occupations	20,031	16,714	83.4	2,938,371	3.5	146.69	2,451,776.66
Consumer Ed. & Homemaking	229,858	215,948	93.9	15,265,633	18.0	66.41	14,341,106.68
Occupational Homemaking	8,900	7,951	89.3	580,492	0.7	65.22	518,564.22
Office Occupations	100,704	82,072	81.5	9,201,599	10.8	91.37	7,498,918.64
Technical Education	20,131	916	4.5	3,350,791	3.9	166.44	152,459.04
Trade & Industrial Education	170,049	13,956	8.2	32,535,424	38.4	191.32	2,670,061.92
Total	723,235	375,108	51.9	$84,771,367	100.1	960.63	$31,016,185.55

*Includes unduplicated enrollments and enrollments below grade 9.

Source: **Arthur M. Lee and Robert Sartin, Learning a Living Across the Nation, Project Baseline, Second National Report, Vol. 2, Flagstaff: Northern Arizona University, November, 1973, pp. 128-129.

***Division of Vocational and Technical Education, Vocational and Technical Education Selected Statistical Tables Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, June, 1973, pp. 31-41.

CONSUMER AND HOMEMAKING AND GAINFUL HOME ECONOMICS

When the Smith-Hughes Act was passed in 1971 to provide funds to support Vocational Education, the primary "vocational" area for girls was homemaking, because only 20.4 percent were working outside the home at that time. Despite the major increase in the numbers of working women, fifty-five years after the passage of the Smith-Hughes Act 33.6 percent of all secondary Vocational Education students in grades 9-12 were enrolled in a homemaking program.[19] Yet, in terms of total enrollments at secondary (grades 9-12), post-secondary, and adult levels, there has been a significant reduction in the total percentage of students--both male and female--enrolled in homemaking. The highest percentage of enrollees in homemaking between 1961-1972 was in 1964, when 44.3 percent of all Vocational Education students were enrolled. The 1972 total enrollment, including below grade 9, was 29.7 percent, of which 27.3 percent were in consumer and homemaking and 2.4 percent were in gainful home economics. Of the 6,422,115 females in total vocational programs in 1972, 49.2 percent were in home economics programs. Thus, homemaking, because of the large enrollment of females, must be scrutinized as to content and impact upon the world of work.

Homemaking and the World of Work

The question must be raised: How relevant is homemaking to the world of work? The answer is not a simple one. Only 2.4 percent of all enrollments in home economics were in gainful home economics in 1972. The remaining 27.3 percent of total Vocational Education students were enrolled in a program that does not lead to a wage-earning occupation, and there is some doubt as to whether it should be classified as "vocational." It should be noted that gainful home economics has shown a steady gain since 1970. This trend suggests an increased demand for the relatively new area of occupational home economics. Unfortunately, potential earnings in related occupations are low.

A second issue which must be raised is the evidence of overt segregation by sex being practiced and perpetuated in schools which have enrollment patterns similar to the National average of 91.6 percent females in home economics. All Vocational Education areas have average enrollments that range from 76.4 percent (females in office occupations) to 94.6 percent (males in agriculture). The only acceptable level of enrollment by sex is in distribution. The rest are in flagrant violation of the law, and it can be anticipated that law suits will occur increasingly as citizens become aware that women in female-dominated Vocational Education programs, particularly homemaking, will have limited opportunities in the world of work unless they change their occupation to one in which males predominate. If present trends continue, projections show little likelihood of significant change in the percentage distribution of male and female enrollments in Vocational Education programs over the next five years, as may be seen in Table 21.

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19 Trends in Vocational Education Fiscal Year 1972, op. cit., p. 6.

TABLE 21

Percentage Distribution of Enrollment in Vocational Education Areas by Sex 1977 - Projected*

Program	1972 % Male	1977 % Male	1972 % Female	1977 % Female
Agriculture	94.6	92.0	5.4	8.0
Distribution	54.7	54.0	45.3	46.0
Health	15.3	17.0	84.7	83.0
Home Economics	8.4	10.0	91.6	90.0
Office	23.6	25.0	76.4	75.0
Technical	90.2	91.0	9.8	9.0
Trade and Industrial	88.3	87.0	11.7	13.0

*Includes unduplicated enrollments and enrollments below grade 9.

Source: Division of Vocational and Technical Education, Trends in Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, June, 1973, p. 7.

Schools will feel the pressure from women's and civil rights groups increasingly as evidence of "tracking" of women and minorities in Vocational Education is documented further. Educators must develop strategies to integrate instructional courses within vocational-technical areas in order to distribute male and female enrollments more evenly. In addition, stronger impetus must be given to encouraging males to enroll in female programs and females to enroll in male programs in similar numbers, even though sex-stereotyping of occupations is not likely to be changed either quickly or easily.

Despite the fact that consumer and homemaking programs do not lead directly to gainful employment, skills developed in these areas are of such importance to human well-being to warrant special recognition. Homemaking increasingly must stress education for good health and human survival, and performance-based instruction should be offered as part of the required curriculum rather than as an elective. All students, both male and female, ought to demonstrate the following homemaking skills:

1. Nutrition
2. Household cleanliness and safety
3. Home maintenance and repair
4. Budgeting
5. Household management
6. Basic health care
7. Child care
8. Family relations

These skills are needed by young men and women alike. It no longer can be assumed that there always will be a woman in the house to perform domestic tasks. The rise of alternative life styles, "open" marriage, and single parent heads-of-housholds and the growing numbers of female workers suggest that men and women increasingly will share household responsibilities.

Consumer Education

The prevalence of overconsumption, debt, and bankruptcy amid the increasing financial complexity of American life warrant education in consumer economics. Whether it is taught in homemaking, economics, or mathematics courses is not a concern of this study. What is of concern is the evident need for knowledge and skills basic to economic survival in the complex free enterprise system of today. Consumer education ought to be a high school requirement including the following competencies:

1. Budgeting
2. Credit and installment buying
3. Savings, investments, and banking
4. Consumer shopping
5. Home ownership, rental, and automobile ownership
6. Insurance
7. Taxes

Homemaking and consumer education are fundamental to human and economic well-being in twentieth century America, and every academic and vocational student ought to demonstrate coping skills before being classified as a

graduate from public education. Current programs ought to be expanded as well as desegregated to meet the needs of young men and women. This might be done by merging skills now taught in industrial arts and home economics or integrating students in these classes in a more equitable manner.

In the near future, the concept of the home as a learning center is likely to be expanded to provide a direct source of information and instruction to children as well as adults who are homebound, but in need of training. "Television, audio cassettes, and correspondence courses along with a variety of other media make possible increasingly rich and sophisticated opportunities for study in the home at the convenience of the student."[20]

TECHNICAL EDUCATION AND TRADE AND INDUSTRIAL PROGRAMS

If equal opportunities are to be available to women in the world of work, equal educational opportunities must be made accessible to them both through improved counseling and integration of women into technical and trade and industrial programs. There are few occupational skill areas in which women do not demonstrate aptitude. In the following aptitudes, there are no discernible sex differences:

1. Analytical reading
2. Eyedness
3. Foresight
4. Inductive reasoning
5. Memory for design
6. Number memory
7. Objective personality
8. Subjective personality
9. Pitch Discrimination
10. Rhythm Memory
11. Timbre Discrimination
12. Total Memory
13. Tweezer Dexterity

Women excel in the following aptitudes:

1. Finger Dexterity
2. Graphoria
3. Ideaphoria
4. Observation
5. Silograms
6. Abstract visualization

Men excel in grip and structural visualization.

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[20] Elizabeth J. Simpson, "Career Education-Feminine Version," Speech at the Regional Seminar Workshop on Women in the World of Work, Technical Education Research Centers, October, 1973, p. 11.

There is no discernible difference between men and women on English Vocabulary tests. Out of the 22 aptitude and knowledge areas measured, there are no sex differences in fourteen; women excel in six; and men excel in two.[21]

The U.S. Employment Service measures the aptitudes of job applicants in relation to job requirements using the General Aptitude Test Battery (GATB), which assesses potential ability in nine areas. Of the seven areas related to the skilled trades, women excel in four, men excel in one, and two show no sex differences.[22]

Opportunities for Women in New Fields

Women are less likely to encounter job discrimination in new and emerging occupational fields. It has been estimated that there will be an additional 864,400 job openings in professional and technical occupations in the seventies, a growth of 39 percent over the previous decade. Despite increasing enrollments of technical students in post-secondary education, there will be a shortage of technical graduates in areas of critical social need: health and environmental control, cybernetics, information systems, and communications.

> Newly emerging technologies, such as electro-mechanical technology, bio-medical equipment technology, laser and electro-optical technology, nuclear medical technology, noise control and abatement technology, offer promise for both men and women. This is particularly true since most emerging fields have not been stereotyped . . . (by sex).[23]

Despite manpower projections, there is little evidence of much change in male/female enrollment patterns in Vocational-Technical Education over the next five years. The repercussions of the energy crisis probably are being felt first and hardest among the most recently hired in the labor force--women and minorities. What effect the decreasing birthrate may have on the Gross National Product and the level of employment is unknown, but these trends suggest that the underutilization of women will continue to be a problem unless plans are implemented now to expand their opportunities in technical, trade and industrial, and apprenticeship programs leading to those higher paying occupations in which there is a growing demand for skilled workers, regardless of sex. Because women show the same skill aptitudes and abilities as men, they should be encouraged to train and enter nontraditional fields as well as non-stereotyped, emerging occupations affording a sound employment outlook.

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[21]John J. Durkin, "The Potential of Women," Boston: Johnson O. Connor Research Foundation, Human Engineering Laboratory, 1971, pp. 1-2.

[22]Hedges and Bemis, op. cit., p. 19.

[23]Mary L. Ellis, "Women in Technical Education," Speech at National Technical Education Clinic, Oklahoma City, March 26, 1971, pp. 9-10.

WOMEN IN POST-SECONDARY EDUCATION

Of the total enrollments in Vocational Education in 1972, 11 percent, or 1,304,092, were classified as "post-secondary" and 26 percent, or 3,066,404, were classified as "adult" students. While a single definition of these terms continues to be a problem, for purposes of this report the following definitions are offered. Post-secondary education in community colleges, technical institutes, and area vocational-technical schools provides programs requiring less than a bachelor's degree. Adult education for citizens beyond high school age offers basic education, high school equivalency, short-term courses, or training programs not requiring a diploma or degree. Adult and continuing education expands the educational system by linking public schools, post-secondary and higher education institutions, and other learning resources within the community in order to provide opportunities for lifelong learning to every resident.

Enrollments in Vocational-Technical Programs Beyond High School

Table 22 indicates the total graduates, number, and percentage of women in vocational-technical programs offered at post-secondary institutions granting associate degrees.

There are few surprises in the enrollment patterns of women in technical programs. Women were in the minority in two- and three-year programs in science and engineering. However, women were a majority in science and engineering programs requiring less than two years for completion. And they were 69 percent of the non-science and non-engineering programs requiring at least one year, but less than two years, for completion.

Less than 0.5 percent of females were enrolled in the science or engineering curriculum below the technical or semi-professional level in 1970-71. Yet, 46 percent were enrolled in short-term non-science and non-engineering programs below the technical level.

The segregation by sex in specific occupational curriculums both at the technical and semi-professional level is startling, as Table 23 (pages 58-61) indicates.

In data processing, women were the overwhelming majority of key punch operators, but none of them prepared to become data processing repairers.

The health services and paramedical field is dominated by women. However, of 19 specific occupations males comprised major enrollments in dental laboratory technology, mental health aide, institutional management, and physical therapy. Optical technology was 90 percent male. Physical requirements for skill and dexterity in these occupations in no way are related to sex. Rather, social custom and like-sexed role models are probable reasons for pronounced differences in male and female enrollments.

TABLE 22

Total Graduates from Associate Degree and Other Award Programs by Occupational Curriculum, by Sex, and Percent Female, 1970-71

Occupational Curriculum	Total	Women	Men	% Women
Science & Engineering Less than 4; more than 2 yrs.	68,213	26,090	42,123	38.2
Non-Science-Non Engineering Less than 4; more than 2 yrs.	55,880	26,476	29,404	47.4
Science or Engineering Less than 2; at least 1 year	19,515	10,756	8,759	55.1
Non-Science-NonEngineering Less than 2; at least 1 year	1,941	6,847	3,094	68.9
Science and Engineering Less than 4 years - below technical level	1,136	6	1,130	0.5
Non-Science-Non Engineering Less than 4 years - below technical level	321	90	231	28.0
Science and Engineering Less than 2 years - below technical level	1,492	321	1,171	21.5
Non-Science - Non Engineering Less than 2 years - below technical level	1,497	682	815	45.6

Source: Mary Evans Hooper, Associate Degrees and other Formal Awards Below the Baccalaureate, 1970-71, National Center for Educational Statistics, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1973, pp. 9-10.

TABLE 23

Science or Engineering Curriculum at Technical Level by Total Enrollment, Total Female, and Percent Female, 1970-71

Occupational Program	Total	Total Female	Percent Female
Data Processing Technologies			
Data Processing Technologies General	5,027	1,725	34.3
Key punch operator and other	648	567	87.5
Computer Programmer Technoloty	2,149	595	27.7
Computer Operator	387	199	51.4
Data Processing equipment maintenance	431	0	---
Other	103	27	26.2
Total	8,745	3,115	35.6
Health and Paramedical Technology			
Health Services Assistant Technologies	258	230	89.1
Dental Assistant Technologies	2,191	2,138	97.6
Dental hygiene technologies	2,506	2,489	99.3
Dental laboratory technologies	264	93	35.2
Medical or biological lab. asst. technologies	1,335	1,030	77.1
Animal laboratory assistant technologies	55	23	41.8
Radiologic technologies (X-ray, etc.)	1,139	782	68.6
Nursing, R.M. (less than 4-year program)	14,408	13,799	95.8
Nursing, practical (L.P.N. or L.V.N.-less than 4-year program)	7,708	7,496	97.2
Occupational therapy technologies	243	217	89.3
Surgical technologies	244	204	83.6
Optical technologies (include ocular care, ophthalmic, optometric technologies)	81	8	9.9
Medical record technologies	374	359	96.0
Medical assistant & medical office asst. tech.	1,256	1,176	93.6
Inhalation therapy technologies	570	270	47.4
Psychiatric technologies (include mental health aide programs)	1,189	429	36.1
Electro diagnostic technologies (include E.K.G., E.E.G., etc.)	22	17	77.3
Institutional management technologies (rest home, etc.)	276	91	33.0

TABLE 23 --Continued

Occupational Program	Total	Total Female	Percent Female
Physical therapy technologies	467	196	42.0
Other, specify	815	560	68.7
Total	34,518	31,607	91.6
Mechanical and Engineering Technologies			
Mechanical & engineering technologies, general	2,560	22	.9
Aeronautical and aviation technologies	2,173	19	.9
Engineering graphics (tool and machine drafting and design)	2,917	60	2.0
Architectural drafting technologies	1,938	53	2.7
Chemical technologies (include plastics)	589	104	17.6
Automotive technologies	4,041	4	.1
Diesel technologies	721	9	1.2
Welding technologies	1,097	7	.6
Civil technologies (surveying photogrammetry, etc.)	1,637	12	.7
Electronics and machine technologies (television appliance, office machine repair, etc.)	7,851	25	.3
Electromechanical technologies	1,301	4	.3
Industrial technologies	1,657	20	1.2
Textile technologies	155	107	69.0
Instrumentation technologies	203	2	.1
Mechanical technologies	2,749	17	.6
Nuclear technologies	65	9	13.8
Construction & building technologies (carpentry, electrical work, plumbing, sheet metal, air conditioning, heating, etc.	4,229	14	.3
Other, specify	1,554	34	2.2
Total	37,437	522	14.0

67

TABLE 23 --Continued

Occupational Program	Total	Total Female	Percent Female
Natural Science Technologies			
Natural science technologies, general	666	173	26.4
Agriculture technologies (include horticulture)	2,870	262	9.1
Forestry and wildlife technologies (include fisheries)	1,087	8	.1
Food services technologies	693	231	33.3
Home economics technologies	872	797	91.4
Marine & oceanographic technologies	183	15	8.2
Laboratory technologies, general	144	60	41.7
Sanitation & public health inspection technologies (environmental health technologies)	145	15	10.3
Other, specify	378	41	10.8
Total	7,028	1,602	23.0
Business and Commerce Technologies			
Business & commerce technologies, general	11,008	3,017	27.4
Accounting technologies	5,301	1,710	32.2
Banking and finance technologies	572	56	20.0
Marketing, distribution, purchasing, business, and industrial management technologies	9,237	2,571	28.0
Secretarial technologies (include office machines training)	16,534	16,255	98.3
Personal service technologies (stewardess, cosmetologist, etc.)	1,262	1,184	93.8
Photography technologies	577	61	10.6
Communications and broadcasting technologies (radio/television, newspapers)	728	201	27.6
Printing and lithography technologies	512	25	4.9
Hotel & restaurant management technologies	916	222	24.2
Transportation & public utility technologies	324	86	26.5
Applied arts, graphic arts, & fine arts technologies (include advertising design)	2,998	1,643	54.8
Other, specify	1,368	549	40.1
Total	51,037	27,580	54.0

TABLE 23 --Continued

Occupational Program	Total	Total Female	Percent Female
Public Service Related Technologies			
Public service technologies, general	277	175	63.2
Bible study or religion-related occupations	744	404	54.3
Education technologies (teacher aide & 2-year teacher training programs)	3,856	3,267	84.7
Library assistant technologies	471	440	93.4
Police, law enforcement, corrections technologies	6,873	420	6.1
Recreation & social work related technologies	1,146	620	54.1
Fire control technology	735	19	2.6
Public administration & management technologies	111	15	13.5
Other, specify	571	383	67.1
Total	14,784	5,743	38.8
Organized Occupational Curriculums Below the Technical or Semiprofessional Level			
Science or engineering-related	2,628	327	12.4
Non-science and non-engineering related	1,818	772	42.5
Total	4,446	1,099	24.7

Source: Mary Evans Hooper, Associate Degrees and other Formal Awards Below the Baccalaureate, 1970-71, National Center for Educational Statistics, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1973, pp. 320-326.

Of 17 programs in mechanical or engineering technnology, women predominated in only one category--textile technology. The entire field was only 14 percent female.

In natural science technologies, women were 91 percent of the enrollments in home economics.

In business and commerce technology, secretarial as well as personal services (which includes cosmetologists and stewardesses) are overwhelmingly female by 98 and 94 percent.

In public service technologies, female enrollments are generally high. Only law enforcement and corrections, fire control, and administration and management technologies are predominantly male.

Of 75 technologies in post-secondary occupational education, women were the majority of enrollments in 27 occupations. As Figure 2 demonstrates, while men selected a technical occupation from twice the number of areas, women were clustered in occupations either related to health or business and commerce. Within the two female-intensive areas, women are a majority in 17 occupational programs. Men are a majority in 32 occupational programs within four male-intensive areas. Thus, the pattern of segregation in vocational-technical programs continues well beyond high school.

Unfortunately, enrollments of women in adult education programs are not available. Consequently, differences between male and female enrollment patterns in adult education are unknown.

MANPOWER TRAINING

The total enrollment in manpower training programs administered by the U.S. Department of Labor in 1972 was 346,066.[24] The following is a description of the various manpower programs designed for special target groups.

Manpower Development and Training Act Programs

The total 1972 enrollment in the five programs under the Manpower Development and Training Act was 209,269, of which 32 percent were females.[25] Enrollments within the five MDTA programs are not reported by sex.

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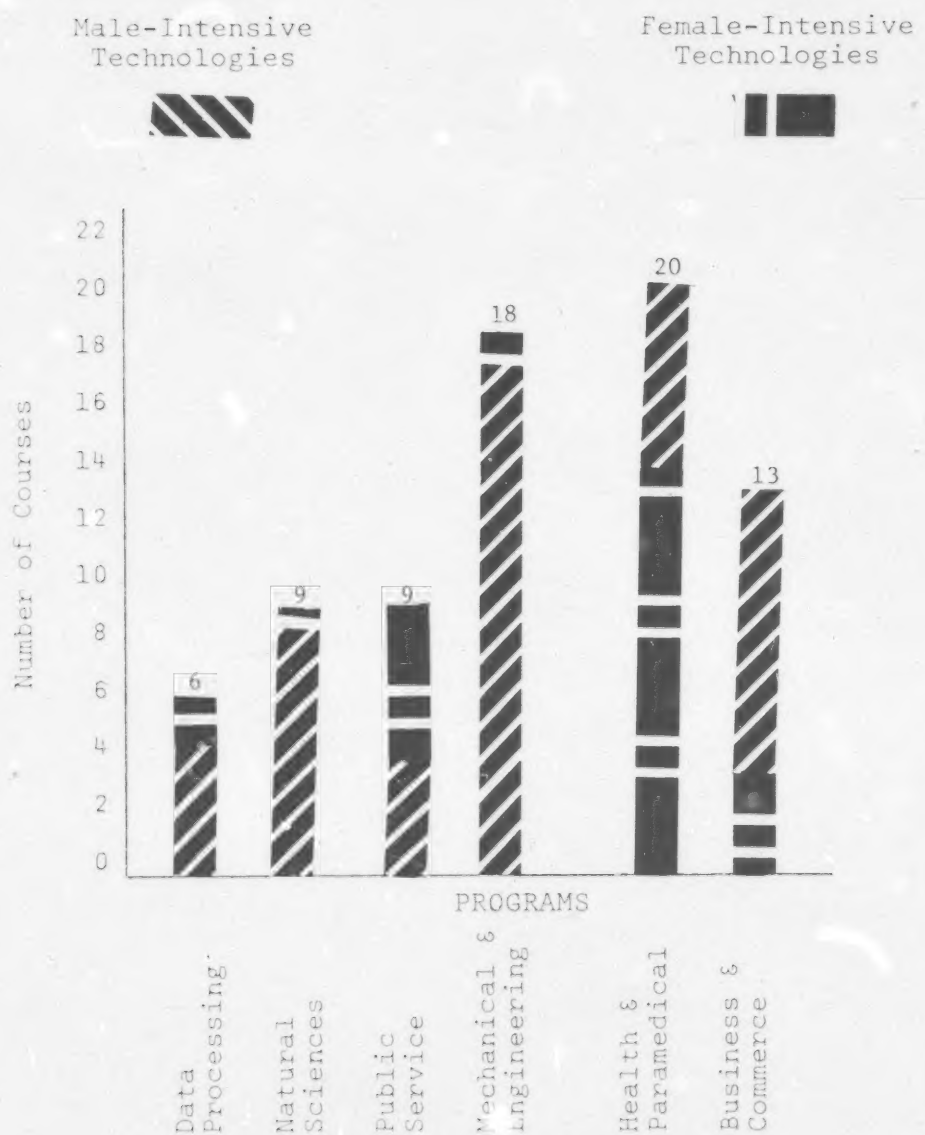
24 Arthur M. Lee and Robert Sartin, Learning A Living Across the Nation, Project Baseline, Second National Report, Vol. 2, Flagstaff: Northern Arizona University, November, 1973, p. 278.

25 Ibid., p. 300.

Figure 2

Distribution of Technological Programs of Post-Secondary Education by Sex 1970-71



Manpower Institutional Development Program

This program is operated by educational institutions for unemployed and underemployed people. The 1972 enrollment was 132,736.[26] According to two studies conducted to determine the effectiveness of this program, males exposed to institutional training had significant increases in earnings while females did not profit. Training had a greater impact on the earnings of those with less education; the program benefitted dropouts, especially grade school dropouts, more than high school graduates.[27] Those with long periods of unemployment prior to training experienced the largest increase in earnings and wages.[28]

Manpower On-The-Job Training Program

On-the-job training provides skills and employment for unemployed or underemployed persons. Studies of this program reveal that women have had larger increases in earnings than men.[29] Some 6,560 trainees were enrolled in 1972.

Manpower Part-Time Program

Training was provided in job-related skills for those already working, but underemployed. In 1972, 4,373 persons participated.

Job-Opportunities in Business Optional Program

Public agencies employ disadvantaged persons in entry-level jobs and provide on-the-job training. A total of 51,152 enrolled in MDTA JOP Entry. JOP upgrade, which focuses on preparation for Civil Service positions, enrolled 4,448 in 1972.[30]

Economic Opportunity Act Programs

The total enrollment in the six Economic Opportunity Act programs in 1972 was 136,797.

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26 Ibid., p. 300.

27 The Effectiveness of Manpower Training Programs: A Review of Research on the Impact on the Poor, A Staff Study for Subcommittee on Fiscal Policy, Joint Economic Committee, Congress of the United States, Paper No. 3, Washington: U.S. Government Printing Office, November 20, 1972, p. 11.

28 Ibid., p. 12.

29 Ibid., p. 11.

30 Lee and Sartin, op. cit., pp. 278-279.

Work Incentive Program

WIN II Provides job placement for welfare recipients to help them become economically independent. Some 37,360 enrolled in 1972. Women volunteer for the program, whereas AFDC fathers are required by law to report to WIN. Women had lower dropout rates, but higher rates of termination than men, probably because of family responsibilities and inadequate child care arrangements. Unfortunately, women had lower placement rates than men. Yet, placement rates increased and dropout rates decreased with years of previous work experience.[31]

WIN II found more than 280,000 jobs during the first 18 months of a Federal program begun under the 1971 amendments to the Social Security Act. WIN II stresses job referral rather than training for AFDC recipients. Employers receive a 20 percent tax credit incentive on the employee's first year wages, if the employee is kept on the job a second year.

Of the 1,235,048 who registered for WIN II during 1973, 75 percent were women, 53 percent were white, 44 percent black, and three percent "other" minority. Sixty percent were 29 to 39 years old. Fourteen percent were under 22, and 26 percent were 40 and over. Fourteen percent had fewer than eight years of school; 80 percent had finished some high school courses; and six percent had some higher education. In all, 65,235 stayed on the job 90 days or more. The average starting wage for men was $2.58; for women it was $1.87.[32] One serious problem is that women are placed in traditional female occupations offering low wages.

Concentrated Employment Program

Concentrated Employment Program provides services to persons in manpower and related programs in areas of high unemployment. CEP may offer job placement, pre-vocational orientation, or institutional training. Some 42,442 persons enrolled in CEP in 1972. The CEP program in Chattanooga has been very successful in training welfare mothers for non-traditional occupations.

Neighborhood Youth Corps

This program provides work opportunity for youths 14 to 21 during the summer or after school. A total of 38,110 participated in 1972. According to a recent study, female enrollees experienced very small in-

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31 "The Effectiveness of Manpower Training Programs," op. cit., pp. 11-13.

32 "More Than 280,000 Jobs Found for Welfare Recipients," News Release, Washington: Office of Information, Department of Labor, March 6, 1974, pp. 1-2.

creases in earnings as a result of training--$83 annually for those with ten years of education.[33]

Operation Mainstream

This program creates jobs on public improvement projects providing training for chronically unemployed and senior citizens in rural areas. It enrolled 10,302 persons in 1972.

Public Service Careers Programs

In 1972, 10,302 disadvantaged persons were trained for jobs in public service.

New Careers Program

This program emphasizes immediate placement and on-the-job training. Some 1,306 persons were employed by private agencies, which received grants for their participation.[34]

Expenditures in 1972 were $424,553,000 for MDTA and $591,871,000 for EOA. The average Federal allocation per trainee was $2,028.74 in MDTA, while the average Federal allocation for EOA was $4,326.24. With females comprising 37.4 percent of the total reported enrollments, a total of $380,142,576 was spent for females and $633,232,152 for males. The remainder supported programs which did not report trainees by sex. Thus, equitable expenditures were made for MDTA-EOA male and female enrollees by the U.S. Department of Labor in 1972. Of the $1,480,857,460 spent on all occupational training, EOA received 40 percent; Vocational Education received 31.9 percent; and MDTA received 29.3 percent.[34]

VOCATIONAL-TECHNICAL PROGRAMS AND RELATED JOB EARNINGS

In order to determine the relationship between fields of vocational preparation and subsequent entry wages paid in related occupations a match between the OE instructional titles and the Department of Labor occupational titles was made. Such comparisons are difficult because of the lack of common nomenclature between these two Federal agencies.

Not all of the 136 OE instructional titles in Vocational-Technical education will match corresponding USDL occupational titles. However, Table 24 (pages 67 to 76) permits some comparison of average earnings of males and females in specific occupations corresponding to OE instructional titles. In most areas, the Dictionary of Occupational Titles (D.O.T.) code number is listed.

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33 Ibid., p. 11.

34 Ibid., pp. 300-304

TABLE 24

Enrollment in Vocational Education by OE Instructional Program by Sex, 1972, and Job Entry Earnings by Related Occupation, 1972

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
			AGRICULTURE	
Agriculture Production	96.0%		Farmer, small medium, large farms	$18,150 ($6,481-$10,466, $37,503) av. net farm income (small, medium, large farms)
Agriculture Supplies & Services	95.2%		Farm, recreation business	$1,630 per farm
Agriculture Mechanics	98.9%		D.O.T. 624.281 Farm Equipment Mechanics	$3.75 per hr.
Agriculture Products	92.2%		Commercial farmer	$20,511 ($5,888-$48,700)
Agriculture Resources	92.4%		Agri. Resources Owner-operated	$25,000 per year ($10,000-$40,000 per year)
Forestry	97.1%		D.O.T. 441.137 Forestry Aides & Technicians	$6,563 per year ($5,432-$7,694)

TABLE 24 --Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
		DISTRIBUTION		
Advertising Services	54.7%		D.O.T. 050.088 Advertising Workers	$8,250 per year ($6,500-$10,000)
Apparel & Accessories	66.9%		D.O.T. 260 Retail Trade	$1,60 per hour* (does not include commerical if any)
Automotive	85.5%		D.O.T. 280.358 Salesworkers	$212.50 per week ($168 - $257)
Food Services		61.9%	Waitresses D.O.T. 311.138	($1.71 - $2.57) $2.19 per hour excluding tips
Industrial Marketing	71.0%		D.O.T. 260 Manufacturers Salesworkers	$9,000 per year
Petroleum	99.5%		Production & Non-supervisory Processing gas and oil extraction	$3.97 per hour
Real Estate	68.1		D.O.T. 250.358 Real Estate Salesworker	Less than $12,000 per year
Tourism	52.2		D.O.T. 079.128 Recreation workers	$8,000 per year ($7,000 - $9,000)

TABLE 24--Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
		HEALTH		
Dental Asst.		93.1%	Dental D.O.T. 079-378 Assistant	$120.00 per week
Dental Hygientist		96.5%	D.O.T. 078.368 Hygientist	$8,900 per year
Dental Laboratory Technician	58.6%		D.O.T. 712.381 Dental Lab. Technician	$80 per week
Medical Lab. Assistant		77.6%	Medical Laboratory Assistant	$6,200 per year
Other Medical Lab. Technology		84.7%	D.O.T. 249.388 Medical Records - Technicians & Clerks	$7,000 per year
Registered Nurse		90.9%	D.O.T. 075.118 Registered Nurse	$8,100 per yr (avg.)
Practical Nurse		94.4%	D.O.T. 079-378 Licensed Practical Nurse (L.P.N.)	$120 per week (avg.)
Nurse's Aide		90.5%	D.O.T. 355-687 Nurse's Aide	$97.00 per week (avg.)
Occupational Therapy		80.4%	D.O.T. 079-128 Occupational Therapy	$10,700 per year (avg.)
Physical Therapy		70.4%	D.O.T. 079.378 Physical Therapy	$8,700 per year
Medical Assistant		92.3%	D.O.T. 079-368 Medical Assistant	$107.50 per week (avg.)

TABLE 24 --Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
Radiologic Technology		61.4%	D.O.T. 078.168 Radiologic Tech.	$150.00 per week
Environmental Health	66.9%		D.O.T. 079.118 Sanitarian	$7,800 per year (avg.)
Inhalation Therapy Tech.		55.6%	D.O.T. 079.368 Inhalation Therapist	$604 per month
		CONSUMER AND HOMEMAKING		
Child Development		95.9%	Social Services - Aides - homemaker aides	$6,500 per year
Clothing & Textiles		98.0%	Production workers (18 wage occupations)	$2.61 per hour
Food & Nutrition		86.1%	D.O.T. 022,891 Food Technologist	$7,497.00 per yr. (avg.) ($7,300 - $7,694)
Home Management		92.8%	C.O.T. 099.228 Household workers	$2,478.00 per year

TABLE 24--Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
		HOME ECONOMICS		
Care and Guidance of Children		92.8%	D.O.T. 022.891 Nursemaids	$2,478.00 per year
Clothing Mgt. Production Services		95.4%	Production workers	$2.61 per hour
Food Mgt. Production Services		75.2%	Cooks, waitresses, etc.	$2.70 per hour ($1.84 - $3.56)
		OFFICE OCCUPATIONS		
Accounting & Computing		59.7%	D.O.T. 210.368 Bookkeeping Workers	$489 per month
			Bank Clerks	$150 per week
Business Data Processing Systems	51%		D.O.T. 213.138 Electronic Computer Operating Personnel	$127 per week
Filing and Office Machines		82.2%	D.O.T. 132.338 File Clerks	$96 per week

TABLE 24--Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
Personnel Training and Related		63.3%	D.O.T. 205.368 Personnel Clerks	$95 per week (avg.)
Stenographer Secretary & Related		96%	D.O.T. 201.268 Stenographers & Secretaries	$548 per month ($515-$581)
Typing & Related		79.6%	D.O.T. 203.138 Typists	$109.00 per week
		TECHNICAL		
Aeronautical Technology	86.0%		D.O.T. 002. Aeronautical Technician	$4.60 per hour Non-professional (6,882.00 to $7,700.00)
Automotive Technology	99.2%		D.O.T. 002. Mechanical technician	$7,700 per year
Chemical Technology	79.8%		D.O.T. 002. Chemical Technician	$6,157 per year ($5,432 - $6,882)
Civil Technology	96.0%		D.O.T. 002. Civil Engineering Technology	$6,157 per year*
Electronics Technology	98.0%		D.O.T. 002. Electronics Technology	$6,157 per year*

*Same as Chemical Technology

TABLE 24 --Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
Environmental Control Technology	95.5%		D.O.T. 002. Technology	$6,157.00 per year*
Industrial Technology	90.2%		D.O.T. 002. Industrial Production Technology	$6.157 per year*
Instrumentation Technology	97.4%		D.O.T. 002. Instrumentation Technology	$6,157 per year*
Commercial Pilot Training	93.4%		D.O.T. 196.168 Commercial pilot	$17,206 per year
Fire & Safety Technology	99.2%		D.O.T. 373.118 Fire fighters	$9,133 per year
Oceanographic Technology	91.5%		D.O.T. 024.081 Oceanographers	$8,569.00 avg. per year ($7,619 - $9,520)
Police Science Technology	90.5%		D.O.T. 375.118 Police Officers	$10,250.00 ($9,500 - $11,000)
Water & Waste Water Technology	86.8%		D.O.T. 955.782 Waste water Treatment Plant Operators	$9,500 per year ($5,000 - $14,000)

*Same as Chemical Technology

TABLE 24 --Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
		TRADE AND INDUSTRIAL		
Air Conditioning	96.0%		D.O.T. 002. Air conditioning Technician	$5.12 per hour ($4.00 - $8.50)
Appliance Repair	97%		D.O.T. 037.281 Appliance Serviceman	$4.87 per hour ($3.05 - $6.50)
Body & Fender Auto	98%		D.O.T. 807.381 Automobile Body Repairmen	$6.52 per hour
Mechanics Auto	98%		D.O.T. 620.131 Automobile mechanics	$6.15 per hour
Aviation Occupations	93%		D.O.T. 168.168 Aviation Occupations	$5,37 per hour ($4.19 - $6.55)
Business Machines Maintenance	95.6%		D.O.T. 633.281 Business machine Servicemen	$130 per week ($1.10 - $1.60)
Commercial Art Occupations		50.1%	Commerical Artists	$80 - $85 per week
Commercial Photography Occupations	74.3%		D.O.T. 143.062 Commercial Photography	($80 - $125)
Carpentry	98.5%		D.O.T. 860.281 Carpentry	$7.55 per hour ($7.41 - $7.69)

TABLE 24 --Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
Electricity	99%		D.O.T. 821.381 Electrician	$8.19 per hour
Masonry	99.9%		D.O.T. 861.781 Stone-Masonry	$7.87 per hour
Plumbing and Pipefitting	99.9%		D.O.T. 862.381 Plumbers and Pipefitters	$8.15 per hour
Other Construction & Maintenance	98.0%		Construction Building & Trades Journeymen	$7.69 per hour
Custodial Services	84.9%		D.O.T. 187.168 Custodian	$2.78 per hour avg.
Diesel Mechanic	98.7%		D.O.T. 625.281 Diesel Mechanics	$4.79 per hour ($4.29 - $5.20)
Drafting Occupations	94.6%		D.O.T. 001.281 Draftsmen	$525.00 per month $131.50
Electrical Occupations	99.9%		D.O.T. 721.381 Electrical workers	$5.04 per hour
Industrial Atomic Energy	76.4%		D.O.T. 002 Atomic Energy Technician	$4.63 per hour
Instrument Maintenance and Repair	96.5%		D.O.T. 710.131 Instrument Repairmen	$4.55 per hour ($3.81 - $5.29)

TABLE 24 --Continued

OE Instructional Program	Percent Male	Percent Female	Occupation	Average Earnings
Maritime Occupations	97%		D.O.T. 197.136 Marine Engineers	$1,150 per month
Metalworking Occupations	99%		D.O.T. 600,280,518,381 Pattern workers, molders, coremen	$4.21 per hour
Metallurgy Occupations	99.2%		Occupations in the Aluminum Industry	$4.95 per hour
Barbering	83.4%		D.O.T. 330.171 Barber	$187.50 per week ($150 - $225)
Cosmetology		94%	D.O.T. 332.271 Cosmetology	$150.00 per week ($100 - $200)
Law Enforcement Training	92.1%		D.O.T. 375.118 Law enforcement	$10,250.00 per year ($9,500 - $11.000)
Refrigeration	92.7%		D.O.T. 637.281 Refrigeration Mechanics	$6.25 per hour ($4.00 - $8.50)
Woodworking Occupations	93.7%		D.O.T. 661.281 Wood Patternmakers	$4.60 per hour ($4.35 - $4.85)

Source: Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education and Welfare, May, 1973, pp. 12-17.

Bureau of Labor Statistics, Occupational Outlook Handbook, 1974-75 Edition, Department of Labor, Washington: U.S. Government Printing Office, 1974.

Out of 84 OE instructional programs in Vocational-Technical Education and their corresponding D.O.T. job classification, comparisons are offered between male and female average entry earnings according to entry-level earnings for 1972 or 1973.

Those occupational areas in which girls aggregate lead to lower paying jobs than those in which boys predominate. The socially determined custom, accepted and reinforced by the schools, of pre-selection of occupations by sex perpetuates the problem of low wages for women in adult life.

TABLE 25

Comparative Average Entry Earnings for Male and Female, 1972-1973

Sex	Earnings By Hours	Weeks	Months	Year
Female	$2.19	$130.05	$561.23	$6,502.12
Male	$4.22	$139.87	$837.50	$9,744.14

Source: Summary of Table 24, pp. 67-76.

PLACEMENT

Of all students who completed secondary Vocational Education or left early with marketable skills, 46 percent were employed in 1972. Of all post-secondary students completing training or leaving early with saleable skills, 56 percent were employed. In adult education, 57 percent of all completers or early leavers were employed.[35]

The following figures represent the placement records for completers or early leavers by occupational area.

Agricultural Education	50.1
Distributive Education	52.8
Health Occupations	61.7*
Gainful Home Economics	39.9*
Office Occupations	45.6*
Technical Education	56.6
Trade and Industrial Education	49.6

The so-called female occupations contain both the highest and lowest placement figures among the seven occupational areas. Unfortunately, non-wage-earning home economics has the highest concentration of females. If the lockstep between vocational preparation and limited pay and promotion for women is to be broken, then girls must enroll in non-traditional programs more freely than they have in the past.

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35 Ibid., p. 216.

*Female-intensive programs

SUMMARY

A total of 11,602,144 persons enrolled in Vocational Education programs in 1972, with females accounting for over 55 percent. Secondary education enrolled 63 percent of the total enrollments with two-thirds of them female; post-secondary education enrolled 11 percent with two-fifths female; and adult education enrolled 26 percent with 46 percent female. In wage-earning vocational programs, females comprise 85 percent of the health programs; 76 percent of the office programs, and 86 percent of occupational home economics, three areas which promise relatively low earnings. Of the 128 OE instructional wage-earning programs, girls are in the majority in 15 health programs, six occupational home economics programs, and eight office programs. On the other hand, males are a majority in eight agricultural, 14 distributive education programs, 22 technical programs, and 40 programs in trade and industrial. Thus, boys have three times the options of girls in Vocational Education. According to rough estimates, programs in which girls predominate appear to have higher student/teacher ratios. In seven States, while female enrollments averaged 52 percent, expenditures for females, based on per unit costs, averaged only 37 percent of the dollars.

Home economics accounts for 49 percent of the female enrollments in Vocational Education. About 45 percent are in non-wage-earning programs; 14 percent of these female enrollments are in child development, consumer education, and food and nutrition, areas which are fundamental to the maintenance of human and economic well-being, but do not necessarily lead to jobs. The female-intensive programs in Vocational Education lead to female-intensive areas of employment, where earnings are about 60 percent of men's earnings. Women and men have very similar aptitudes for employment. If women are to break out of female-intensive Vocational Education programs and low-paying female occupations, they must enroll in increasing numbers in male-dominated technical and trade and industrial programs in order to qualify for employment as technicians, craftspersons, or as skilled workers, particularly in new, unstereotyped, occupations.

Although young women represent over half of the vocational high school graduates, they are 39 percent of the enrollments in post-secondary education and 46 percent of adult education enrollments. Within the post-secondary program, 59 percent of women are concentrated in only four out of seven specific technnical offerings: registered nursing, practical nursing, secretarial, and educational occupations.

The U.S. Department of Labor enrolled 346,066 persons in five MDTA and six other manpower training programs in 1972. Studies of programs with the largest female enrollments indicate that women benefitted less than men.

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HISTORIC LEGAL DIFFERENCES IN SEX ROLES

Before the dawn of civilization, men left the cave to hunt animals and women stayed home with the children and gathered and prepared the bulk of the food. In the cradle of democracy, ancient Greece, men were citizens, but most women were slaves. Early Roman law viewed men as adults and women as perpetual children. The eldest son always inherited the property, which included women and slaves. The woman was under the hand (manus) of the man, but unlike a slave, she could not be "emancipated," but only handed from one man to another. This practice prevails in our custom of asking a father for the "hand" of his daughter in marriage.

The ancient Roman Law became the basis for English common law, which, in turn, was the foundation for colonial law in the New World.

Despite the doctrine that human rights are basic to all people, women and slaves were not safeguarded by the tenets of democracy. While Abigail Adams wrote to her husband John "to remember the ladies," the famous words, "all men are created equal," applied only to men. Women and slaves were disenfranchised.[1]

Edward Mansfield, in the first major analysis of The Legal Rights, Liabilities and Duties of Women in 1845, stated: "the husband and wife are as one and that one is the husband."[2]

Elizabeth Cady Stanton was the leader of the first feminist meeting ever held in the United States or elsewhere. On July 19, 1848, female delegates to the Seneca Falls Convention declared:

> We insist that they (women) have immediate admission to all the rights, and privileges which belong to them as citizens of the United States.

They demanded the right to an education, to enter professions, to earn a living, to control property, to sit on a jury, to make a will, and to conduct a business.

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1 Jo Freeman, "The Building of the Guilded Cage," Sex Role Stereotypes, Washington: National Education Association, October, 1972, p. 72.

2 Ibid., p. 70.

> He has monopolized nearly all the profitable employment and from those she is permitted to follow she receives but scant remuneration. He closes against her all the avenues to wealth and distinction which he considers most honorable to himself. As a teacher of theology, medicine, or law she is not known.[3]

Thus, the limited opportunities for education and employment which handicap women today have their origin in early history. Unfortunately, few of the contributions made by women in their centuries of struggle have been recorded.

The Civil War opened up opportunities for women outside the home. Women worked in government service as clerks, bookkeepers, and secretaries. Women established hospitals, nursed the wounded, or worked as cooks and laundresses. Many entered public life to serve the abolitionist cause.

In the main, the ninteenth century woman worked to support her husband and household.

> Typical woman's work included, in addition to all of the housework, the care of poultry, the dairy, including milking, feeding, tending the cows, and making butter and cheese; the care of any other barnyard animals; the "kitchen" or vegetable garden; and such chores as sewing, mending, making candles and soap, feeding the hired hands and working in the fields if necessary.[4]

By the end of the nineteenth century, women were working for wages as teachers, nurses, office workers, household domestics, and prostitutes. They also worked in factories, but restrictive labor laws served as a kind of social control by men who saw women as competition in the newly emerging society brought about by the Industrial Revolution. Those occupations which men relinquished to women lost prestige and the advantages of equal pay. Men excluded women from unions, contracted with employers to hire only men, and passed laws limiting the employment of married women. "Protective" labor laws have protected the jobs of men by denying women overtime pay, promotions, and opportunities.[5]

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[3] "Education for Survival: Sex Role Stereotypes," Prototype Materials, Conference organized by National Education Association, November 24-26, 1972, pp. 37-38.

[4] Janice Law Trecker, "Women in U.S. History High School Textbooks," Social Education, National Council for the Social Studies, March, 1971, pp. 130-131.

[5] Freeman, op. cit., p. 72.

It took 50 years after the passage of the Fifteenth Amendment for women to receive the right to vote in 1920. Women's legal rights as a social issue were dormant until the 1954 case of Brown vs the Board of Education of Topeka, Kansas. The Equal Pay Act, an amendment to the Fair Labor Standards Act, was passed in 1963. However, 54 years after the passage of the Women's Suffrage Amendment, the Equal Rights Amendment lacks sufficient State support for ratification, another indication of the contemporary inequality of women.

PREVAILING ATTITUDES ABOUT WOMEN

Sexism in American pervades our society with continuous reminders of the differences between the sexes--differences fostered more by cultural conditioning than biologic imperative. Girls are dainty and sweet; boys are aggressive and stubborn. Girls cry; boys don't. Light pastels are feminine; dark browns, blues, and blacks are masculine. Males are dominant; females are subordinate. Girls are talkers; boys are thinkers. If your income is limited, educate your son--your daughter can find a husband.

Women are viewed as inferior. Modern slang is full of derogatory terms for women. Our entertainment media exploit females as sex objects. Advertisers use scantily-clad women to sell everything from shaving creams to cars. Virtually every object in our society takes on sexual symbolism that is gratifying to the male.

Family Influences

Children are treated by their families in different ways according to their sex. Boys are handled roughly; girls are cuddled. Boy babies are dressed in blue; girl babies are dressed in pink. Adults choose action toys like footballs, baseballs, and bats for boys. Girls are given dolls and dollclothes for sedentary activity and play fantasy. Girls receive tiny pots and pans and boys receive play tool kits.

Very few studies of child-rearing practices comparing parental treatment of boys and girls have been made, but those that have indicate the existence of traditional differences in practice. Girls receive more affection, more protectiveness, more control, and more restrictions. Boys are subjected to more achievement demands and higher expectations from parents. Girls are discouraged from being independent and physically active.

With sons, socialization seems to focus primarily on directing the boy's impact on the environment. With daughters, the aim is rather to protect the girl from the impact of environment.[6] Thus, boys are taught to shape their own world, while girls are taught to let the world influence

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[6] Ibid., p. 78.

them. Over-protected boys tend to develop intellectually like girls. Girls who are active are those whose mothers left them alone to solve problems independently. Tests of analytical thinking of school-age children indicate that boys perceive analytically and girls contextually. Not enough research has been conducted yet to state conclusively whether sex-related behavior is caused by early physiological differences or upbringing, but since the reward system seems to be capable of modifying behavior, family treatment of the child early in life may well be the stronger influence.[7]

The Religious Influence

The Judeo-Christian and Muslem religions perpetuate traditional sex roles and extreme bias through elaborate theologies. Women are subordinate in most faiths. Although the churches have encouraged girls and women to contribute to the faith through women's religious organizations, women have been denied participation as clergy or as members, in some cases. Even their active participation in the worship service or as lay leaders has been restricted. In the Catholic church, boys serve as acolytes. In the Protestant church, girls wait on the communion table. The men serve as ushers; the women prepare the altar cloths.

Community Attitudes

The most powerful community and societal influence upon the child is television. Programming, production, and content are controlled by men. The newscaster, the sports announcer, and the weatherman are all male, although recently, more women, including black women, are appearing in these roles both on local and National networks. However, in a recent monitoring of one local channel, the National Organization for Women found that commercials portrayed men in dominant roles and women in the menial, domestic role in all but a few instances.

Within the power structure of the community, the housewife is powerless to such an extent that wives without jobs generally introduce themselves with the apology, "I'm just a housewife." There are few role models for girls and women to emulate in business, industry, and on corporate boards. The higher one looks on the company organizational chart, the fewer the women. In volunteer organizations, women have found an outlet for their occupational ambitions, but the executives are invariably males. In politics, on city councils, on local boards of education, on county commissions, and in the courtrooms, women are very scarce. There is no woman justice on the Supreme Court; among 97 Federal appeal court judges, one is a woman; of 402 Federal district court judges, four are women; of 93 Federal district attorneys, all are men, according to Time's special issue, "The American Women," March 20, 1972. With so few women in decision-making roles, a woman often is reluctant to participate in community action.

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7 Ibid.

Societal Attitudes

Textbooks are strangely silent on the role of women in history. Their contributions to arts and sciences, politics, and education occupy few pages. Most women who have achieved renown had the rare advantage of a gentleman's education to help them rise above their station. Yet, even the great queens who fought for their crown did little to ennoble the cause of all women. Natable women are weighed in terms of their support of and contribution to male-established institutions. Such non-conformists as Florence Nightingale and Clara Barton are honored for tending soldiers during war. Georg Eliot, the great social novelist, had to assume a masculine name to gain an audience. Until the Suffragettes and Abolitionists of the nineteenth century, few women were able to develop their own aesthetic, judgement, and reason, seek an independent identity, or impose their own values on the world. Thus, women like Harriet Beecher Stowe, Lucretia Mott, Susan B. Anthony, Carrie Nation, Sojourner Truth, Harriet Tubman, all reformers in the cause of human justice, are truly unique.

The position of women in society has been an inferior one. Negative, demeaning attitudes toward women are prevalent in school, community, and the labor market. "An incompetent man can get about in nine countries," says a Chinese proverb, "but a competent woman can only get round her cooking stove."

Those first few women who are hired for or promoted into top level management positions often are isolated. As Rosabeth Kanter observes:

> The token woman may have difficulty with competent performance because she is lost in one of four stereotypical roles: the mother, the sex object, the pet or "iron maiden" . . .
>
> Awareness of these stereotypes are important for characterizing group dynamics around the few women in formerly all-male organizations:
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> 1. Mother. A solitary woman sometimes finds that she has become a "mother" to a group of men. They bring her their troubles, and she comforts them. The assumption that women are sympathetic, good listeners, and can be talked to about one's problems is a common one in male-dominated organizations . . .
>
> 2. Seductress. The role of seductress or sexual object is frought with more tension than the maternal role for it introduces an element of sexual competition and jealousy . . . Should the women cast as sex-object (that is, seen as sexually desirable and potentially available--seductress is a perception; the woman herself may not be consciously behaving seductively) share her attention widely, she risks the defacement of the whore. Yet should she form a close alliance with any man in particular, she arouses resentment . . .

3. Pet. The "pet" is adopted by the male group as a cute, amusing little thing and symbolically taken along on group events as mascot, a cheerleader for the shows of male prowess that follow . . . She is expected to admire the male displays but not enter into them; she cheers from the sideline . . .

4. Iron Maiden. The "iron maiden" is a contemporary variation of the stereotyped roles into which strong women are placed. Women who fall into any of the first three roles, and in fact resist overtures that will trap them in a role (such as flirtation), may consequently be responded to as "tough" or dangerous . . . The solitary situation of the token woman contributes to the stereotyping in organizational roles.[8]

There are many popular sentiments that reinforce female inferiority:

-The admitted discomfort that some people feel working under the supervision of a woman

-Latent sexual attitudes that undermine the transfer of women from bedroom to board room

-The belief that a woman's natural biological function is to stay home to become housewife and child rearer.

-The popular fallacy that women are less stable and less competent.[9]

Such social stereotyping on the part of citizens, particularly employers, tends to restrict girls' free choice of future life roles. Girls will continue to view their futures only in terms of a home and family and boys will associate their future with a career until society recognizes that careers, marriage, and homelife are not prescriptions, but alternatives--for both sexes.

The Psychology of Women

Psychologists and anthropologists seem to agree that sex-equated traits are the responses we make in living up to the expectations of society. In our culture, females have a monopoly on subjectivity, passivity, in-

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8 Rosabeth Moss Kanter, "Women in Organizations Change Agent Skills," Speech, New Technology in Organization Development Conference, New Orleans, Louisiana, February 18, 1974, pp. 3-6.

9 Barbara Lett Simmons, "Should Women Have Equal Education and Employment Opportunities?" Speech, Regional Seminar/Workshop on Women in the World of Work, Technical Education Research Centers, October, 1973, p. 3.

tuitiveness, and aesthetic sensitivity, while aggressiveness, competiveness, courage, logic, and inventiveness are exclusively male traits.[10]

Women are trained to accept their secondary status through socialization. Society defines appropriate sex roles, rewards those who behave properly, and ostracizes those who deviate. Studies of women confirm the power of social conditioning and its often tragic consequences for women. In one study, women described themselves as uncertain, anxious, nervous, hasty, careless, fearful, childish, helpless, sorry, clumsy, stupid, silly, and domestic. Women also viewed themselves as understanding, tender, sympathetic, pure, generous, loving, moral, kind, grateful, and patient.[11]

Terman and Tyler, in their review of literature on sex differences among young children, listed these traits for girls: sensitivity, conformity to social pressures and environment, ease of social control, ingratiation, sympathy, and low levels of anxiety. Girls compared to boys, however, were more nervous, unstable, neurotic, socially dependent, emotional, ministrative, fearful, and submissive and had less self-confidence and lower opinions of themselves and of girls in general. All of these characteristics are self-denigrating, and were found among cultures under colonial control: the American Indians under British rule and the Algerians under the French.[12]

All "feminine" traits are not intrinsically bad. The supreme irony is that women are conditioned to exhibit those characteristics that are not valued highly in our culture.

DISCRIMINATION IN EDUCATION

Sexism exists everywhere, but schools are guilty of discrimination against females both overtly and covertly, if for no other reason than that schools reflect the society they serve. The current low status of women educators is discriminatory not only against them, but also against girls in the classroom by failing to provide female role models. The lower the grade level, the larger is the number of women.

School policies that prevent girls from enrolling in industrial arts and boys from enrolling in homemaking or that place all the boys in "Bachelor Living" classes discriminate against both sexes by sexual segregation within the school. Teachers inadvertently treat boys and girls differently. Textbooks are rampant with sex-role stereotypes. Children come to school with sex traits established. The schools merely reinforce

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10 Jack Conrad Willers, "The Impact of Women's Liberation on Sexist Education and Its Implications for Vocational-Technical Education," Speech, Regional Seminar/Workshop on Women in the World of Work, Technical Education Research Centers, October, 1973, p. 4.

11 Freeman, op. cit., p. 76.

12 Ibid.

these and traditional sex roles and thus, limit children's choices in education, work, and life.

Pre-Kindergarten and Primary School

Early home conditioning of boys and girls has shaped their basic pattern of behavior, their outlook, and their expectations. By the time they enter school--even pre-school--children have attached greater significance to male roles, male occupations, and the male world. Most little girls are well aware of their proper place. And school experiences strengthen it. The kindergarten has segregated space; the dolls and kitchen are in one section for the girls and blocks and trucks in a section for boys. The instructional supplies include plastic "models" of familiar figures for children to identify with: community helpers like the fireman, policeman, male bus driver, and female nurse, the family members--mother in her apron, daddy in his business suit--all reinforcing the conventional mold and limiting the child's desire or expectation of breaking out of it.

The teacher and her aide, assign sex-specific tasks. The girls wash the sink and water the plants and tidy up the tables. The boys move the chairs and stack the equipment, take care of the animals, and empty the wastebaskets.[13]

Children in elementary school are surrounded by female teachers. This may be damaging to boys, who grow up in a female-oriented world until puberty. However, the "power" figure in the school is more likely to be a male. This only serves to corroborate girls' subordinate role and lower her expectations.

Girls are much better pupils in traditional elementary schools, which demand obedience and passivity. Girls are also more verbal than boys and they begin speaking, reading, and counting earlier. They put words together into sentences earlier and articulate more clearly. They are less prone to stuttering.[14] Girls are even better at math in elementary school.

However, grade school boys have more positive feelings about being male and are confident and assertive. As boys and girls progress in school, girls' opinions of boys become increasingly higher and their opinions of girls become lower. As their enthusiasm about being females dwindles,

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13 Merle Froschl, "It's Never Too Early; Sex-Role Stereotyping in the Pre School Years," Colloquy, November, 1973, pp. 16-17.

14 Freeman, op. Cit.

they lose confidence in their general adequacy, their popularity, and their accomplishments. Recent studies indicate that while girls' awareness of careers is increasing in variety, they are unable to identify what a day on the job would be like. Boys, however, can describe career activities in detail.[15]

Textbooks

Textbooks, basal readers, and children's library books reinforce sex differences and limit girls' perceptions of themselves and their futures. Teachers and librarians sort books for boys and girls. A task force of the National Organization for Women in Princeton, New Jersey, spent two years reviewing children's readers to locate non-sex-stereotyped series. They read 134 books from 12 different publishers and found none.[16]

Many texts portray boys in a variety of activities, while girls invariably are helping mother with the baby or baking cookies. The numbers of stories about boys outnumber stories about girls by four to one. The same traits that home and society, community and television have reinforced are repeated in textbooks.

The message of female inferiority also is repeated in library books. The American Library Association has reviewed children's library books and reached similar findings. Boys as the central story character outnumber girls as the central figure by a ratio of two to one. The same is true of biographies; there are relatively few books about famous women. Unfortunately, in first grade alone, as much as 80 percent of a child's school day is spent on textbooks and supplemental reading books which adversely influence girls' self-concepts.

The way in which role models are portrayed is also a problem in curriculum materials. Girls are shown as physically inactive and unable to perform tasks requiring strength. They are never shown in careers which might conflict with the wife and mother role. Boys are problem solvers and mischief-makers. Mothers are shown in the home doing nothing other than housework. Fathers are shown as the jobholders and decision makers who provide entertainment for children. Both images need to be balanced by depicting women in careers and men as parents with a share of domestic responsibilities.

Staff Attitudes

The most damaging sex-role stereotyping at school is committed by the

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15 Lynne B. Iglitzin, "A Child's Eye View of Sex Roles," Reprint, The Schools and Sex Role Stereotyping, Prototype Materials for Conference organized by National Education Association, November 24-26, 1972.

16 Carol Jacobs and Cynthia Eaton, "Sexism in the Elementary School," Today's Education, December, 1972, p. 21.

classroom teacher, who is in the strongest position to influence the values and expectations of students. As members of a stereotyping society, all of us have been preconditioned to practice prejudicial behavior, which can be eliminated by awareness of sex-biased actions.

Teachers demonstrate sex-role stereotyping in their classroom teaching, in their treatment of students, and in their assignments of classroom tasks. Stereotyped teaching practices include emphasizing differences between the sexes; admonishing students to act like young "ladies and gentlemen"; anticipating that boys will be harder to manage than girls; assigning homework by sex; segregating seating arrangements; and encouraging rivalry between the sexes by segregated games. Some teachers may even show a stronger preference for one sex.

As mentioned earlier, boys, in elementary school are dominated by an overabundance of female teachers--as damaging as discrimination against girls. Assertive boys resent the preference shown to girls and the expectation that they should behave as passively.

Teachers must avoid attitudinal or overt behavior which indicates that one sex is superior to the other. Teachers, like the rest of society, need retraining to change their behaviors and attitudes.

Sex Stereotyping in High School

In high school, girls continue to make consistently better grades than boys. However, their opinions of themselves and other girls decrease. In their desire to be popular, girls accept the limited options open to them and resign themselves to appropriate female roles on a day-to-day basis. Boys, however, have an increasingly higher opinion of themselves and a lower opinion of girls as they grow older. By the time girls leave high school, they are prejudiced against women to such an extent they may be unable to recognize the accomplishments of women in careers. Such unconscious assumptions surely contribute to the myth that it is indeed a man's world and the women in it are incompetent.[17]

Horner's study of undergraduate women at the University of Michigan found that 65 percent of the women, but only 10 percent of the men, associated academic success with negative consequences. It just may be that cultural conditioning about female inferiority is so strong that girls substitute popularity for personal achievement, and many actually denigrate success as unfeminine.[18]

Unfortunately, public schools contribute to these restricting beliefs. Classes are by and large available to both sexes alike in elementary school. However, during middle school and junior high, homemaking is offered to girls and industrial arts to boys. Such segregation is not only in violation of Title IX of the Education Amendment of 1972, but also

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17 Freeman, op. cit.

18 Ibid., p. 77.

contributes to the myth that females do not possess manual dexterity. Curriculum appropriate in 1917, when fewer than one-fifth of all women worked outside of the home, is being foisted upon millions of youth three generations later. As previously discussed, it is just as important to human survival and well-being for boys to cook and mend and care for a home and children as it is for girls to be able to repair the toaster, replace the window panes, and understand the principles of both the internal combustion and rotary engines. Imagine the horror of the progressive home economics specialist who, after successfully integrating the junior high classes, visited one class where 30 students, both boys and girls, were busy--making aprons!

The other segregated class is physical education. In most schools, while there is likely to be a higher enrollment of females, more sports options are available to boys. The faculty may include a larger number of male gym teachers, and more instructional space and time may be devoted to boys' gym and recreation. The extra-curricular sports program may provide no opportunity for girls to participate in team sports--including intramurals. Classes with huge enrollments providing little opportunity for individual participation contribute to women's negative attitude toward athletic activities. What effect it may have on women's physical development is unknown, but there is increasing evidence of the importance of regular exercise to the maintenance of well-being throughout life. Many women lead very sedentary lives, and are barred from certain jobs, perhaps because of inadequate physical education in school.

A study by the National Organization for Women of the athletic program in Westfield, New Jersey, illustrates the severe neglect of sports programs for girls. Boys were offered seven more sports options than girls in the overall program. In interscholastic sports, boys had 18 offerings while girls had four. Slightly less than one-half the participants in the total sports program were girls, possibly because the budget for girls was $5,000 for extra-curricular activities and $ 43,900 for boys. The per capita expenditure for girls was $6.73; for boys it was $40.80.[19]

Despite the pervasive sex bias in athletics, signs of change are appearing in the world of sports. Universities have increased substantially the expenditures for women's athletic programs. For example, the University of Washington increased its budget for women's athletics from $18,000 in 1973-74 to $200,000 in 1974-75. Scholarships for women athletes have become a reality. All-female athletic competition has increased enormously; 800,000 women participated at the end of 1973 compared with 300,000 who competed in 1971. Mixing of the sexes in non-contact sports now is permitted in most recreational high school and collegiate programs.

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[19] Jean L. Ambrose, "Analyzing Physical Education for Equality," Women's Studies Newsletter, Spring, 1974, p. 9.

At some schools, women have been recruited for men's sports.

Kentucky has passed a law which requires that every public high school sponsoring boys' varsity sports also must sponsor girls' varsity sports. State Senator Nicholas Baker, who introduced the legislation, summed it up.

> The idea of sports in school is not to create a feeder system for the pros but to create an interest that will carry over into the adult years, so people will know how to keep in shape when they are past 30. This is just as important for girls as for boys.[20]

Professionally, interest in women's sports is apparent in the success of Billie Jean King in tennis. Purses and prizes in golf and skiing have increased greatly. Even television has responded to women's athletics by extending network coverage. The Federal government has contributed to the change in education with Title IX of the Education Amendment of 1972, which prohibits sex segregation in school activities.

Clifford Fogan, head of the National Federation of State High School Athletics says:

> In the past girls shied away from sports because it was not ladylike . . . Girls now think athletics are fun . . . Girls demanding equal funds may modify the big-budget, win-at-any-cost programs existing some places for boys. But I think that would be a good thing. The inevitability of change is beginning to be felt in amateur and professional athletics and will accelerate in years to come.[21]

In terms of the high school curriculum, girls still receive differential treatment. They are restricted to vocational programs providing preparation for lower paying "female" occupations. Fewer girls enroll in mathematics beyond fundamental algebra and geometry, and physics and electronics are almost as segregated as industrial arts. While such classes are not "closed" to girls, social expectations of male superiority in math and science, reinforced by family, school, and peers, serve as a covert restriction which later bars women from enrolling in technical programs.

The result of the educational process is unequal opportunity for female graduates. From early childhood education on, the socialization process is a self-fulfilling prophesy: stereotypic sex roles for males and females limit educational and career opportunities. This results in the loss or underutilization of female talent and places enormous pressures on men to succeed financially in a highly competitive world.

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20 Bil Gilbert and Nancy Williamson, "Women in Sports: A Progress Report," Sports Illustrated, July 29, 1974, p. 28.

21 Ibid., pp. 26-31.

THE PREGNANT TEENAGER

While several publications have been addressed to the plight of the pregnant teenager--both to the girl and to society--the problem has not been addressed in relation to Vocational-Technical Education for women. The problem is reviewed here for these reasons:

1. Pregnancy is the principal cause of school dropout among girls.

2. Undereducated females and their children increase substantially the numbers of financially dependent people, a problem for them and their families and for society.

3. Home economics and consumer education, which have the largest enrollments in secondary Vocational Education, have an obligation to teach family living so that students can acquire skills needed for effective human growth in today's world--needed by all, but an acute and immediate need for the expectant mother.

4. Unwed pregnant teenagers need immediate occupational skills in order to support themselves and their babies.

5. Implications for child care among teenage mothers and working women can be addressed simultaneously.

Despite the decrease in the birthrate, the number of pregnant teenagers is increasing both as a result of peaking secondary school enrollments and increasing numbers of sexually active youth. More than 210,000 school-age girls give birth each year, some 200,000 between the ages of 14 and 19.[22] These young mothers come from all types of backgrounds, rich and poor, black and white. The problem is more severe in the inner city, where poor families can ill afford another mouth to feed and can offer fewer options for their daughters than more affluent families. The majority (60 percent) of unwed mothers are white. Yet, of those who became pregnant at age 15 and under, the majority (60 percent) are members of minorities. Maternity homes serve only five percent, and most girls remain at home during pregnancy. By the time the child is born, 60 percent will be married.[23] Nearly six in ten of all first births among 15 to 19-year-olds

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22 B.Shanus, "Help for Girls in Trouble: Special High School in New York City," Parents, June, 1971, p. 81.

23 Marian Howard, "Pregnant School Age Girls," The Journal of School Health, September, 1971, p. 361.

are conceived out of wedlock, and 27 percent of births to this age group are born out of wedlock.[24] It is estimated that 50 to 85 percent of all marriages between school age youth are complicated by pregnancy.[25] The actual number of illegitimate pregnancies among teenagers is impossible to calculate, because middle-income parents either quietly arrange a marriage between the girl and the father, conceal the pregnancy and put the child up for adoption, or arrange for a legal abortion which is increasing as an alternative to pregnancy among some women.

Consequences to the Mother

The consequences of pregnancy are overwhelming to the teenager. Whatever options about her future life style she may have had suddenly are very limited, and she is faced with hard and immediate decisions. School-age pregnant girls are medically high risks. They have more complications with pregnancy and delivery than older women. The younger the girl is, the higher her health risk. The nutritional demands of pregnancy may compromise her growth potential.[26] While some of these complications are biological, many of them are societal--linked to poor nutrition and lack of pre-natal medical care.

What are pregnant girls to do? The majority will marry, often a decision made by parents. Many are forced into an early marriage with a partner they might not have chosen otherwise. Many may drop out of school. The younger the girl is the greater the likelihood that she will never return, a great personal loss at an early age when few skills are developed fully. She may remain in her parent's home suffering the emotional shock of being cut off from her peers. She may put up her baby for adoption or she may be among the high rate of attempted suicides. But the majority of unwed teenage mothers keep their illegitimate babies. Thoughts of a future career are substituted by plans for child-rearing.

Consequences to the Child

And what of the child born to the teenage mother? Young mothers are much more likely than older women to have premature babies with low birth weights. Premature, underweight babies are high risks in two ways--high risk for infant mortality and high risk for birth defects. The chances that the baby will be stillborn, will die soon after birth, or be born with a serious physical or mental defect are much higher for the very young mother than for the young woman in her twenties.

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24 Jane Menkin, "The Health and Social Consequences of Teenage Childbearing," Family Planning Perspectives, July, 1972, p. 45.

25 "Pregnant Teenagers," Today's Education, October, 1970, pp. 27-28.

26 Howard, op. cit., p. 362, and Today's Education, p. 27.

Infant mortality rate is extremely high for mothers under 15. The infant mortality rate for out-of-wedlock births exceeds that for legitimate births. Non-whites have three times the rate of infant mortality than white infants during the first four months of life. One study has found that infant death rates due to respiratory infections and accidents are twice as common among low-income illegitimate births.[27] A study in England in 1949 established neonatal mortality among single live births at 16.4 per 1000 legitimate births; 22.4 per thousand for births occurring during the first nine months of marriage; and 27.0 per 1000 for out-of-wedlock births. Of infants between 6-12 months, post-neonatal mortality for all income groups is highest among the youngest mothers. For young mothers under 20 of three or more children, the risk of neonatal or fetal death is 90 percent higher than for older mothers. Unfortunately, girls who have a first child early tend to bear subsequent children in rapid succession.[28]

Perhaps an even more tragic risk to the children of teenagers is the higher incidence of both mental subnormality and neurological defect in surviving premature infants born out-of-wedlock. Those running the highest risk of having an infant of low birth weight are unmarried, low-income black women under the age of 15. Prematurity and low birth weight have been linked to epilepsy, cerebral palsy, mental retardation, and higher risks of blindness and deafness. Another study links increased risks of congenital defects such as intracranial or spinal injury, breathing difficulty, and clubfoot to first births of young mothers.[29]

Consequences to the Society

And what are the social consequences of teenage pregnancy? The educational, economic, and welfare systems are affected by teenage pregnancy. As was mentioned previously, pregnancy is the chief cause of school dropout for girls. Of those who drop out, the majority do not return to school, a loss to the society of a productive talent missing out on the opportunity for school-related skill development. Of those teenagers forced into a hasty marriage, the likelihood of future divorce is high. A second risk to society is that teenage married couples suffer economic disadvantages in terms of occupation, income, and assets compared with other couples.[30]

The economic costs to society will never be determined accurately. However, those studies of illegitimacy that have been done predict high

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27 Jeffry R. Heller and John Kiraly, Jr., "An Educational Program for Pregnant School-Age Girls," The Clearing House, April 1973, p. 477.

28 Menkin, op. cit., pp. 48-49.

29 Ibid., p. 50.

30 Ibid., P. 21.

costs to the society. Krantz estimated that one illegitimate child requiring public assistance costs the society some $100,000 over a lifetime. Teenage girls who become pregnant out-of-wetlock and who receive public assistance have an average of eight additional children in subsequent years.[31] These children often suffer decreased growth and intelligence and the tragic consequences of poverty. In 1971, 31 percent of families on welfare were headed by a woman. The chances are good that not too many years ago many mothers of these families were among the 200,000 unwed teenagers delivering their first child. Additional costs to the society include medical care for surviving infants with serious health problems. The costs of special education and institutionalization for children with chronic defects also must be considered.

School Programs and Pregnant Girls

Fewer than one-third of the public schools make provisions for educating pregnant girls. Most schools have regulations to exclude the pregnant teenager, some as soon as school staff are aware of her pregnancy. Others establish a time limit. In a study of 17,000 school districts reported in the American School Board Journal in April 1971, only 5,450 districts provide for pregnant girls.

Some school districts let pregnant girls attend night school and adult education classes. Some provide a homebound teacher. Some schools solve the problem by allowing girls to remain in their regular programs, treating the physical condition like any other short-term illness. A few districts deal with the situation creatively by providing for pregnant teenagers within the regular school program, but tailoring special services to the needs of the girls. Still others offer girls a choice of all these options plus a special education program which provides services, preparation for motherhood, and occupational skill training. Such schools recognize that the long-term payoff of such programs increases the likelihood of the mother to complete her education and have a healthy, well-born baby and decreases the need for expanding special education services at the preschool and kindergarten level.

Few situations are more painfully discriminatory than the plight of the pregnant teenager excluded from school without knowledge and skills. But the consequences are shared by all, the young mother, her child, society, and the schools that will be educating the child and subsequent children within at least five years.

CHILD CARE FOR STUDENTS

The lack of child care facilities has implications for students of occupational training programs as well as for women in the world of work.

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31 Heller and Kiraly, op. cit., p. 477.

Many mothers are unable to seek or complete job training, find employment, and help improve the income of their families, because they cannot arrange for adequate care for their children. Post-secondary and adult education programs must come to grips with the need for optimal day care facilities in order to increase the number of women participants. Moreover, the development of day care and nursery school programs can provide another avenue of training and employment for both women and men.

Potentially, child care programs can free young mothers who wish to continue their education, afford practical on-the-job training, and provide employment for trained graduates in the field of child care and development. Whether supported by the community, by educational institutions, corporations, or by the government, child care programs are imperative, if women are to have equal opportunities for education and employment.

SUMMARY

Women have been viewed historically as the weaker sex. However, sex roles have been created more by social structures than by physiology. Attitudes perpetuated in the world around us have conditioned women to be dependent, passive, and submissive rather than assertive and competitive, two traits needed for success in the world of work. Because schools reflect the society they serve, they perpetuate sexism from pre-school through high school through teacher behavior, textbooks, and inadequate female role models. Sex-segregated classes, like homemaking, and unequal expenditures preferential to males are in violation of Title IX of the Education Amendment of 1972. Stereotyped sex roles limit the motivation of females to compete and to contribute to society and the economy.

Most female high school students who drop out do so because of pregnancy. Although these teenagers often lack occupational and homemaking skills, few public or vocational schools offer programs which might alleviate the serious consequences of this problem to the mother, to the child, and to society. Limited educational options for young women produce unskilled adults who are unable to support themselves or their families adequately.

The lack of adequate day care facilities, as well as needed information, prevents women from continuing their education or earning a living, and thus contributes to poverty.

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STAFF-RELATED PROBLEMS FOR WOMEN IN EDUCATION

Of the two sexes, females are more successful learners--as measured by the expectations and grading patterns of the public school staff. A higher percentage of girls graduate from our public high schools. In 1970, of the 2,896,000 graduates, 50.5 percent were girls.[1] The cultural conditioning and parental expectations of boys contribute to the development of assertiveness early in life--assertiveness which likely contributes to their less successful early school adjustment, but which finds increasing support in the school system as boys move upward through the grades.

> One explanation of the initial male repudiation of academic excellence is that our society expects boys to assert their independence and girls to conform to certain limitations of decorum and tractability. A boy derives a sense of achievement from many things--physical strength, athletic skill,--that are not related to "book learning" or the classroom, and indeed the submission that is frequently required by teachers before they will give high grades is utterly repugnant to the masculine self-image.[2]

More men are available in secondary schools as role models who anticipate and reward male assertiveness. Intramural, interscholastic sports and extra-curricular activities provide additional opportunities for males to participate and develop as individuals within a group. The male student who finds little teacher support for his growth and independence seeks solace from his peers or alternatives outside the system. For some youth, part-time jobs may be an alternative. For others, the only alternative is to "drop out". Masculine aggression, which is suppressed at the elementary level, may be the very characteristic which contributes most to success in post-secondary education and later on the job.

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1 Kennth A. Simon and W. Nance Grant, Digest of Educational Statistics, 1972 Edition, National Center for Educational Statistics, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1973, p. 56.

2 Irene H. Impelligerre, "Nature and Scope of the Problem," Guidance for the Underachiever with Superior Ability, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1961, pp. 11-12.

Females, on the other hand, progress successfully through the public school system up through junior high school and are rewarded for their passivity to teacher demands. Girls achieve via conformity. Yet, all the while they are achieving in school, their feelings about themselves and their own sex are becoming more negative. More females graduate than males, but fewer of them continue their education. "The intellectual, high achieving girl who is educationally motivated through the early school years has little in the way of cultural expectation to sustain her motivation into adulthood."[3]

The docility, passivity, and conformity which were rewarded by teachers in the school system also may contribute psychologically to the lower self-esteem, the lesser creativity and independence, and the lower status of women in the job market. The role of school staff in potential impact upon the growth and development of individual learners is second only to the role of the home. Children whose homes do not provide the nurture and support for optimal growth are dependent upon the schools to provide it.

PUBLIC SCHOOL STAFF

Our public schools are predominately female in numbers of girls enrolled and in numbers of staff employed. Table 26 shows the distribution of professional personnel within our public schools for 1972-73.

While 66.4 percent of the teaching staff are female, nowhere are women in the majority of power positions, and the higher the grade level, the fewer the women. While statistics are unavailable on the sex distribution of instructional staff in vocational schools, women seldom are encountered in technical fields other than health occupations, office occupations, food service, or textile technologies. Principals of most schools are male. As the number of female teachers and school administrators decreases in the higher grade levels, so does the self-image of female students. Yet, existing female staffs, with proper training, are in a strong position to encourage independence, curiosity, creativity, and assertiveness in both male and female students at an early age. While the school system currently rewards conformity, the economic and social system rewards assertiveness. And therein lies one dichotomy.

TEACHERS IN VOCATIONAL-TECHNICAL EDUCATION

The number of teachers in Vocational Education in 1972 was 235,658. Of this total, 52 percent were in secondary education, 22 percent were in post-secondary education, and 26 percent were in adult education. Unfortunately, the number of women teachers, broken down by program area, is unknown. However, it is likely that the majority of female instructors are in those vocational areas which have predominantly female enrollments.

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[3] Ibid.

TABLE 26

Staff Survey of Public School Professional Personnel
1972-73

Position	Numbers of Persons Total	Numbers of Persons Women	Percentage Distribution Total	Percentage Distribution Women
INSTRUCTIONAL STAFF				
Teachers.	2,110,368	1,401,284	100.0	66.4
Principals				
Elementary (including Teaching Principals).	48,196	9,446	100.0	19.6
Junior high	9,374	272	100.0	2.9
Senior High	15,827	222	100.0	1.4
Total principals	73,397	9,940	100.0	13.5
Assistant principals				
Elementary.	6,483	1,997	100.0	30.8
Junior high	7,817	594	100.0	7.6
Senior high	13,289	850	100.0	6.4
Total assistant principals . . .	27,589	3,441	100.0	12.5
Other instructional staff				
School librarians	40,540	37,216	100.0	91.8
Counselors.	49,770	23,392	100.0	47.0
School nurses	17,074	16,835	100.0	98.6
Other	33,691	16,879	100.0	50.1
Total other instructional staff.	2,352,429	1,508,987	100.0	64.1

Source: Research Report, 1973-R-5, Twenty-sixth Biennial Salary and Staff Survey of Public School Professional Personnel, National Education Association, 1972-73, p. 9.

Table 27 compares the enrollments in Vocational Education programs by sex and the distribution of teachers in 1972.

This table indicates that the three Vocational Education programs in which girls are concentrated--health, home economics, and office--make up 53 percent of the total enrollment in Vocational Education. Teachers assigned to those programs comprise only 48.5 percent of the total teachers in Vocational Education. These are the programs in which women teachers are likely to abound. The situation is particularly acute in home economics, where 30 percent of the total enrollment are instructed by 18.5 percent of the teachers; in contrast, in trade and industrial 21 percent of the enrollment are taught by 29 percent of the total staff. Consequently, as was discussed in Chapter II, girls are concentrated heavily in classes where they may have less opportunity for instructional time from the teacher. Conversely, according to these gross estimates, women teachers are likely to be assigned to classes with higher pupil/teacher ratios. Thus, secondary Vocational Education schools customarily discriminate against both female students and female teachers.

VOCATIONAL COUNSELING IN THE PUBLIC SCHOOLS

While the family is the strongest influence on the occupational choice of a student, it would seem that the school would be in the secondary position by virtue of the great amount of time students spend in class. A study of occupational aspirations of high school youth completed at Louisiana State University confirmed that parents are the decisive influence. However, in view of the increasing numbers of single-parent families, most of them headed by women, and the number of families with no employed adults, the importance of the secondary school and the vocational school, particularly as a motivator of occupational choice, cannot be emphasized too strongly. Table 28 summarizes the study of occupational choices.

Girls ranked mother first and father fourth, with "person in occupation" and friend preceeding father as major influences on their occupational choice. Boys, on the other hand, ranked father first and mother second. It should be noted that of all school personnel the guidance counselor is in the strongest position to influence student job choice. However, both friend and "person in an occupation" rank higher.

To date, the impact of the public school counselors in helping students in selecting vocational-technical programs or in setting occupational goals has been second-rate. While many explanations for this situation are possible, two will be explored here.

Counselors tend to reflect the biases of society. Just as our society has been both sexist and racist toward women and minorities, it also has perpetuated class distinctions and a caste system. An elitist philosophy continues to permeate both home and school. White-collar jobs have more status than blue-collar jobs. Intellect is more valued than manual skills. Academic education has far more prestige than vocational training. Despite increasing wages for skilled craftsworkers and technicians, despite increasing evidence of the failure of the academic program

TABLE 27

Enrollments in Vocational Education Program by Sex and the Distribution of Teachers, 1972

Program	Total	% Total	% Female	% Male	Total Teachers	Teacher % of Total
Agriculture	896,460	7.7	5.4	94.6	13,270	5.9
Distribution	640,423	5.5	45.3	54.7	13,795	6.2
Health	336,652	2.9	84.7	15.3	14,552	6.5
Home Economics	3,445,698	29.7	91.6	8.4	41,547	18.5
Office	2,351,878	20.3	76.4	23.6	52,662	23.5
Technical	337,069	2.9	9.8	90.2	16,820	7.5
Trades & Industrial	2,397,968	20.7	11.7	88.3	65,105	29.1
Other	1,304,619	11.2	44.7	55.3	6,369	2.8

Source: Division of Vocational and Technical Education, Trends in Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, June, 1973, p. 23.

Division of Vocational and Technical Education, Summary Data Vocational Education Fiscal Year 1972, Washington: Office of Education, Department of Health, Education, and Welfare, May, 1973, pp. 12-17.

TABLE 28

Students Responses of Persons Influencing
Their Occupational Choices

	Boys		Girls	
	Number	Percent	Number	Percent
	N-5,810		N-6,200	
Mother	2,813	48.6	3,807	61.7
Father	3,080	53.2	2,832	45.9
Brother or sister	1,801	31.1	2,200	35.6
Grandparent	1,412	24.4	1,578	25.6
Other relative	2,138	36.9	2,559	41.4
Friend	2,396	41.4	3,155	51.1
Person in occupation	2,613	45.1	2,973	48.1
Clergyman	524	9.1	424	6.9
Coach	1,042	18.0	594	9.6
Principals	860	14.9	826	13.4
Academic teachers	952	16.4	1,165	18.9
Vocational agriculture teacher	922	15.9	284	4.6
Vocational home economics teacher	387	6.7	1,156	18.7
Distributive education teacher	541	9.3	442	7.2
Business education teacher	777	13.4	1,363	22.1
Trade & industrial education teacher	665	11.5	305	4.9
Industrial arts teacher	924	16.0	300	4.9
Guidance counselor	1,232	21.3	1,518	24.6
Other	2,251	38.9	2,783	45.1

Source: C.L. Mondart, Sr. and Others, "Educational and Occupational Aspirations and Expectations of High School Youth," Baton Rouge: Louisiana State University, Department of Vocational Agricultural Education, 1970.

to meet the needs of many youth, and despite the decline of enrollments in our Nation's colleges and universities at a time when demographers had projected that enrollment would be peaking, schools perpetuate elitist values.

One study of 400 students in an urban high school supports the hypothesis that guidance counselors are more effective in academic rather than vocational counseling. They are providing much more assistance in college and university planning than they are expanding student awareness of multiple job opportunities and being helpful in occupational goal-setting.[4]

A simultaneous problem existing among many counselors today is that their performance is inhibited by sex bias. They not only lack adequate knowledge and information about current and future jobs and the world of work, but also continue to limit girls' awareness of the entire range of job options. Yet, even if counselors were to treat each student according to individual ability rather than sex, current school policies may deny girls the opportunity to elect heretofore male-intensive classes. As recently as 1972, girls were a majority in 38 wage-earning courses out of the 136 OE instructional programs. Counselors are either unaware of the need for desegregating classes or are not providing girls with enough encouragement to consider "male" occupations as appropriate choices.

One of the techniques used to motivate students in occupational goal-setting is the vocational interest questionnaire. These questionnaires purport to compare students' current academic and outside interests and preferences with the intersts and preferences of practitioners and employees in specific occupations. Yet, the Strong Vocational Interest Blank, designed especially for and administered separately to each sex, perpetuated stereotyped notion about "approprate" activities, behaviors, and jobs and served to steer young women--and men--into traditional occupations. Fortunately, this test, which has been popular for many years, recently has been revised; the use of sex-biased tests specifically is prohibited in new HEW guidelines.

Female counselors are in an especially favorable position to encourage developing ambitions among female students. However, many counselors still reinforce the social conventions which prevent many young women from realizing their full potential. They have failed to broaden girls' occupational interests, encourage their exploration of a total range of jobs--or help girls plan in terms of lifelong careers. If present practices continue, there may be little change among females in electing diverse educational and training programs leading to nontraditional, higher paying jobs.

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[4] Joseph L. Thorne, "The Relationship of the Job Market and Motivational Factors on the Career Goals and/or Job Choices of Flint High School Seniors," Unpublished Doctoral Dissertation, University of Michigan, 1974, p. 18.

WOMEN IN ADMINISTRATION

The status of women in public school administration has been mentioned earlier. While the total instructional staff in public schools was 66 percent female in 1972-73, only 20 percent of the elementary principals, three percent of the junior high school principals, and 1.4 percent of all high school principals were women. (See Table 26, page 101.) The scarcity of women in central office administration is even more dramatic. Women in middle management positions comprised 26 percent of the staff, but again, the higher in the hierarchy, the fewer the women. Women represent less than 11 percent of the executive staff of the public schools and only 0.01 percent of the superintendents. While school administrative staff and college professors actively encourage people to apply for administrative jobs, they evidently do not direct their efforts toward females. In a 1974 survey of key women teachers in Michigan, only one woman educator among some 500 expressed an interest in becoming a superintendent of schools.[5] The lack of female role models continues to deter female students from seeking graduate degrees in any phase of public school administration, including vocational-technical administration.

Of the staff in colleges and universities preparing teachers and administrators, only 19 percent of the faculty were women, although women are in greatest proportion in the smaller, less prestigious institutions. Women are 16.8 percent of the faculty in all universities and 23.5 percent of the teaching staff in all colleges.[6] Table 29 illustrates the placement of women by rank within both colleges and universities for 1971-72.

In higher education, according to a survey conducted by the American Association of University Women, women are under-represented in top level faculty positions, in influential offices, and in top level administrative positions. They are unlikely to be presidents, vice presidents, or directors of development, despite the claim of 90 percent of the institutions surveyed that women are included in policy positions. Women in administration are most likely to be head librarians, directors of placement or financial aid. There was an average of 2.6 female department chairmen at the colleges

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[5] Eileen Foley, "State's Women Educators Fare Poorly," Detroit Free Press, July 7, 1974, p. 5.

[6] The Status of Women Faculty and Administrators in Higher Education Institutions, 1971-72, NEA Research Memo, Washington: National Education Association, April, 1973, p. 1.

TABLE 29

Percent of Women Faculty at Colleges and Universities 1971-72

Faculty Rank	Universities	Colleges
All ranks	16.8	23.5
Professor	6.9	13.4
Associate Professor	12.6	19.1
Assistant Professor	18.5	24.8
Instructor	39.3	39.6
Lecturer	36.7	39.6

Source: The Status of Women Faculty and Administrators in Higher Education Institutions, 1971-72, NEA Research Memo, Washington: National Education Association, April 1973, p. 2.

in the survey. Twenty-one percent had no women trustees and 25 percent had only one. Thirty-five percent did not hire both husbands and wives for faculty posts.[7]

Women administrators currently complain that women are powerless puppets in many instances:

> . . . many women are being put into adjunct or assistant posts to satisfy affirmative action rules. When they have been switched from secretary to administrative assistant with no power, there is a built-in capacity for failure.

Thus, many female college administrators are isolated from the power base and kept from real responsibility.[8]

While the Carnegie Commission on Higher Education predicted an increase of women and minorities in faculty positions over the next 20 years, they are unlikely to increase in numbers paralleling their participation rate of 38 percent and 15 percent, respectively, in the 1970 labor force, according to the Commission. If colleges and universities hire 35 percent female faculty members in the 1970s, women will increase to 28 percent of faculty by 1980. If 45 percent of the new-hires are women in the 1980s, women will comprise close to 30 percent of the faculty by 1990.[9]

Of the 67 professional organizations with units devoted to the status of women in their profession, only three are related to Vocational-Technical Education, namely, the American Personnel and Guidance Association, National Association for Women Deans, Administrators and Counselors, and the National Vocational Guidance Association.[10] Women in administration are scarce in public school systems, in executive office positions, and almost nonexistent

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7 Susan B. Kaufman, "Few Women Get Positions of Power in Academe, Survey Discloses," The Chronicle of Higher Education, November 30, 1970, pp. 1 and 4.

8 "Women Administrators Seek Way Out of Isolation," The Chronicle of Higher Education, November 5, 1973, p. 5.

9 "Pace Seen Slow for Women and Minorities in Gaining Places on Nation's Faculties," The Chronicle of Higher Education, October 9, 1973, p. 1.

10 "Women's Units in 67 Organizations," The Chronicle of Higher Education, October 29, 1973, p. 9.

in the superintendency. As for academic ranks, the female fifth of the faculty tends to hold the lowest ranking jobs and is less likely to have tenure than male colleagues. Those few administrative slots held by women on campuses are generally shut-off from any real opportunity to influence executive level decisions.

ENROLLMENTS OF WOMEN IN HIGHER EDUCATION

While 1,487,000 girls graduated from high school in 1972 compared with 1,457,000 boys, fewer girls enrolled in higher education than boys, despite the fact that 30,000 more girls were eligible.[11] In 1972, among all first time enrollments in community colleges and four-year higher education institutions, 791,000 girls and 947,000 boys were enrolled. Whereas the majority of high school graduates are girls, only about 45 percent of those enrolling for the first time in programs of higher education are girls.[12]

A recent report of the American Council on Education found that first-time female college students in 1971 were younger and more had graduated in the upper half of their high school class than the men, but fewer planned to complete four years of undergraduate education.[13] The total enrollment in institutions of higher education in the fall of 1971 was 8,948,644, 42 percent of whom were women.[14]

As for completions of programs of undergraduate education in the United States in 1970-71, 196,405 received associate degrees or other formal recognition for completing at least two years of higher education. Of this total, 85,163, or 44 percent, were women.[15] Of the 846,110 bachelor's degrees conferred by all four-year institutions in 1970-71, 367,687, or 43 percent, were granted to women.[16]

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11 Simon and Grant, op. cit., p. 55.

12 Ibid., p. 76.

13 Ibid., p. 77.

14 Ibid., p. 68.

15 Mary Evans Hooper, Associate Degrees and Other Formal Awards Below the Baccalaureate, 1970-71, National Center for Educational Statistics, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1973, p. 19.

16 Mary Evans Hooper, Earned Degrees Conferred, 1970-71, National Center for Educational Statistics, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1973, p. 8.

At the graduate level in all four-year colleges and universities in the United States in 1970-71, women were awarded 40 percent of the 231,486 master's degrees. Of the doctoral degrees granted, women received only 14 percent. Of the total aggregation of degrees granted in 1970-71, master's degrees conferred upon women accounted for eight percent of the total and doctoral degrees granted to women accounted for 0.4 percent. The comparison holds true again, the higher the level of education completed, the fewer the women.

Enrollment of Women in Discipline Divisions 1970-71

Education as a discipline grants more degrees than any other division of higher education. Women dominated the total number of graduates by almost three to one, with 132,236 women and 45,402 men receiving bachelor's degrees.[17] Of all women receiving bachelor's degrees in 1970-71, 36 percent were concentrated in the field of education. They were a majority of the master's gradutates in only six disciplines and received a majority of the doctorates in only one discipline--home economics. It appears that college-educated women are more confined by academic discipline than by the limited number of occupations in which they are clustered.

Education as a Discipline

Education has the largest student enrollment of any college discipline, as shown earlier, and women make up three-fourths of the undergraduate enrollments. Table 31 breaks out the total enrollments by sex in the 44 divisions within education.

In 1970-71, undergraduate women were dispersed widely throughout all divisions except agricultural education and industrial arts. Of the students who received master's degrees, women again were dispersed widely except in the above mentioned Vocational Education areas. At the doctoral level, women received a majority of the degrees conferred in only three divisions--pre-elementary education, home economics education, and nursing education. In the four divisions in which only two or four degrees were conferred, half were granted to women: junior high school education (one woman); education of the deaf (two women); education of the visually handicapped (one woman); and driver and safety education (one woman).

Enrollments in Vocational Education

How does the concentration of women in graduate programs affect women in Vocational Education? Since female enrollments decrease at the graduate level, women educators as a group have fewer promotional opportunities, because a master's degree is almost a prerequisite for job advancement in the field. Five educational disciplines relate to Vocational-Technical Education. Women comprised 96 percent of master's degrees granted in nursing education; 90 percent in home economics; 60 percent in business,

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17 Ibid., p. 175.

TABLE 30

Enrollment of Women in Discipline Divisions by Number and Percent of Bachelors, Master's, and Doctor's Degrees, 1970-71

Discipline	Bachelor's Degree			Master's Degree			Doctor's Degree		
	Total	Women	% Women	Total	Women	% Women	Total	Women	% Women
Agricultural Natural Resources	12,710	539	4.2	2,458	144	5.9	1,086	31	2.8
Agricultural and Environmental Design	5,578	667	11.9	1,724	243	14.1	36	3	8.3
Area Studies	2,497	1,322	52.9	1,017	397	39.0	149	26	17.4
Biological Sciences	36,033	10,571	29.3	5,756	1,943	33.7	3,645	595	16.3
Business & Management	116,709	10,803	9.2	26,654	1,045	3.9	810	23	2.8
Communications	10,802	3,813	35.3	1,856	642	34.6	145	19	13.1
Computer & Information Services	2,388	324	13.6	1,588	164	10.3	128	3	2.3
Education	177,638	132,236	74.4	89,067	50,020	56.1	6,398	1,335	21.2
Engineering	50,357	403	.8	16,457	185	1.1	3,638	23	.6
Fine & Applied Arts	30,447	18,169	59.7	6,678	3,165	47.4	621	138	22.2
Foreign Languages	20,433	15,285	74.8	4,779	3,126	65.4	781	297	38.0
Health Professions	25,484	19,680	77.2	5,902	3,272	55.4	466	77	16.5
Home Economics	11,271	10,970	97.3	1,453	1,365	93.9	123	75	61.0
Law	545	27	4.9	955	46	4.8	20	-	0
Letters	73,398	44,782	61.0	12,743	7,328	57.5	2,416	567	23.5
Library Science	1,013	932	92.0	7,028	5,713	81.3	39	11	28.2
Mathematics	24,918	9,494	38.1	5,201	1,524	29.3	1,199	93	7.7
Military Sciences	357	1	.3	2	0	0	-	-	-
Physical Sciences	21,549	3,014	14.0	6,386	853	13.3	4,391	246	5.6
Psychology	38,154	17,037	44.6	4,438	1,651	37.2	1,782	427	24.0
Public Affairs & Services	9,303	4,566	49.1	8,405	4,099	48.8	178	43	24.1
Social Services	156,698	57,918	37.0	16,522	4,710	28.5	3,659	507	13.8
Theology	3,744	1,017	27.2	22,710	661	24.4	312	6	1.9
Interdisciplinary Studies	14,084	4,117	29.2	1,706	600	35.2	91	14	15.4
Total	846,110	367,687	43.4	231,486	92,896	40.1	32,113	4,559	14.2

Source: Mary Evans Hooper, Earned Degrees Conferred, 1970-71, National Center for Education Statistics, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1973, p. 12.

TABLE 31

Bachelor's, Master's and Doctor's Degrees Conferred in Higher Education by Divisions within Education Discipline by Total, Women, and Percent Women: United States 1970-71

Education Division	Bachelor's Degree			Master's Degree			Doctor's Degree		
	Total	Women	% Women	Total	Women	% Women	Total	Women	% Women
General Education	2,095	1,696	80.9	12,915	7,441	57.6	1,598	326	20.4
Elementary Education	90,960	82,722	90.9	17,079	13,952	81.7	219	83	37.9
Secondary Education	3,718	2,141	57.6	5,425	2,488	45.9	212	42	19.8
Junior High School Educ.	721	461	63.9	134	67	50.0	2	1	50.0
Higher Education	6	-	0	308	163	52.9	274	41	15.0
Jr. & Com. College Educ.	1		0	91	36	39.6	6	1	16.7
Adult & Continuing Educ.	12	5	41.7	239	98	41.0	45	10	22.2
Special Education	2,320	1,979	85.3	3,051	2,206	72.3	114	37	32.5
Adm. of Special Educ.	--	--	--	106	66	62.3	9	3	33.3
Educ. of Mentally Retarded	2,640	2,265	85.8	935	668	71.4	18	5	27.8
Educ. of the Gifted	12	11	91.7	28	21	75.0	--	--	--
Educ. of the Deaf	239	228	95.4	208	168	80.8	4	2	50.0
Educ. of the Culturally Disadvantaged	3	2	66.7	115	61	53.0	--	--	--
Educ. of the Visually Handicapped	78	74	94.9	97	72	74.2	2	1	50.0
Speech Correction	2,358	2,074	87.9	572	494	86.4	40	10	25.0
Education of Emotionally Disturbed	347	291	83.9	378	287	75.9	14	5	35.7
Remedial Education	--	--	--	87	70	80.4	--	--	--
Special Learning Disabilities	125	116	92.8	179	142	79.3	2	--	--
Educ. of the Physically Handicapped	149	132	88.6	150	118	78.7	--	--	--
Educ. of the Multiple Handicapped	63	59	93.6	50	38	76.0	--	--	--
Social Foundations	180	70	38.9	534	230	43.1	129	31	24.0
Educational Psychology	315	114	36.2	1,286	674	52.4	362	88	24.3
Pre-Elementary Education	3,405	3,358	98.6	533	499	93.6	9	7	77.0
Educ. Statistics & Research	3	3	100.	61	27	44.3	58	13	22.4
Educ. Testing, Evaluation & Measurement	--	--	--	222	116	52.2	30	6	20.0

TABLE 31 --Continued

Education Division	Bachelor's Degree			Master's Degree			Doctor's Degree		
	Total	Women	% Women	Total	Women	% Women	Total	Women	% Women
Student Personnel	7	4	57.1	13,414	6,800	50.7	556	116	20.9
Educational Administration	5	1	20.0	7,892	1,676	21.2	957	82	8.6
Educational Supervision	--	--	--	707	374	52.9	71	9	12.7
Curriculum & Instruction	296	215	72.6	2,261	1,374	60.8	458	117	25.5
Reading Education	9	8	88.9	2,802	2,497	89.1	61	30	49.2
Art Education	5,687	4,084	71.8	1,000	664	66.4	53	16	30.2
Music Education	7,283	4,212	57.8	1,564	727	46.5	109	14	12.8
Mathematics Education	2,217	1,139	51.4	782	353	45.1	49	15	30.6
Science Education	891	412	46.2	883	343	38.8	91	15	16.5
Physical Education	24,773	9,565	38.6	4,410	1,378	31.2	283	69	24.4
Driver & Safety Education	132	33	25.0	171	25	14.6	2	1	50.0
Health Education	1,089	642	58.9	405	206	50.9	51	8	15.7
Business, Commerce & Distributive Education	8,648	6,010	69.5	1,924	1,147	59.6	82	26	31.7
Industrial Arts, Vocational & Voc./Technical Educ.	7,109	108	1.5	2,099	111	5.3	106	6	5.7
Agricultural Education	1,405	14	1.0	450	21	4.7	43	1	2.3
Education of Exceptional Children	26	23	88.5	112	86	76.8	4	1	25.0
Home Economics Education	6,509	6,415	98.5	802	725	90.4	28	27	96.4
Nursing Education	603	590	97.8	330	317	96.1	28	27	96.4
Education, Other	1,199	960	80.1	2,276	994	43.7	219	43	19.6
Total	177,638	132,236	74.4	89,067	50,020	56.1	6,398	1335	20.9

Source: Mary Evans Hooper, Earned Degrees Conferred, 1970-71, National Center for Education Statistics, Office of Education, Department of Health, Education, and Welfare, Washington: U.S. Government Printing Office, 1973, pp. 173-268.

commercial, and distributive education; five percent in industrial arts, Vocational, and Vocational-Technical Education; and less than five percent in agricultural education. Of the total enrollments in these five disciplines, women comprised 41 percent. At the doctoral level, women held only 87, or 30 percent, of the total degrees granted in all vocational-technical fields in 1970-71, a contributing factor to lesser opportunities for advancement of professional women in Vocational-Technical Education.

Male faculty in colleges of education are apparently unsuccessful or negligent in encouraging more women to continue their education through completion of the doctoral program. One only can conclude that restrictions in the number of women university faculty members result in a small number of female doctoral candidates, which, in turn, limits the number of women qualified for top posts. Universities have failed to produce enough female teachers and administrators to serve as role models who might encourage young women to seek degrees in more diversified areas of Vocational Education.

LEADERSHIP DEVELOPMENT

The Leadership Development Program for vocational educators resulted from the efforts of several organizations, including the Bureau of Adult, Vocational and Technical Education, the State Director's Association, and the American Vocational Association. Leadership Training Institutes provided staff development for Vocational Education personnel under Section 553 of Part F, Education Professions Development Act (EPDA) of 1968. Some Institute members provided additional leadership in the establishment of the Leadership Development Program under Section 552, Part F, EPDA in 1969.

The purpose of the three-year project was to afford vocational teachers the opportunity for graduate study in Vocational Education, related fields, and research and development. Graduate work could include internship experiences in State and local Vocational Education systems. It was anticipated that scholarship award winners would complete requirements for the degree of Doctor of Education or Philosophy. Thus, the long-term goal of the Leadership Development Program was to provide a group of highly trained people who could occupy positions of responsibility.

Eighteen universities in 18 states were selected as training centers for the EPDA fellows. They were as follows:

California -	University of California at Los Angeles
Colorado -	Colorado State University
Connecticut -	University of Connecticut
Georgia -	University of Georgia
Kentucky -	University of Kentucky
Michigan -	Michigan State University
Minnesota -	University of Minnesota
New Jersey -	Rutgers University
North Carolina -	North Carolina State University
Ohio -	Ohio State University
Oklahoma -	Oklahoma State University

Oregon -	Oregon State University
Pennsylvania -	Temple University
Tennessee -	University of Tennessee
Texas -	Texas A & M University

Guidelines for the program included the establishment of an advisory committee on each campus to increase staff awareness of the program, to chart new directions, to evaluate the program, to assist in evaluating the doctoral program, and generally to disseminate program-related information. Summary reports of the graduate fellowship programs in Vocational-Technical Education prepared by 14 of the 18 universities provided the basic information for dissemination.

All of the 18 project directors for the Leadership Development Program were men. Ten staff members assisted the project directors. Of these, two were women serving as assistant directors. Nine of the fourteen summary reports listed advisory committees or staff involved in the project. Of 107 faculty or advisory committee members listed, only 17 were women.

In addition to the federally supported fellowship awards, 40 additional awards were provided by the States. A total of 334 graduate students were enrolled in the Leadership Development Program. Of these, 209 were males and 129, or 39 percent, were females. Of the total, 27 were black, five were of Mexican descent, and five were "other" minorities. Students ranged in age from 21 to 52. One hundred twenty had completed doctorates as of November 1973. Fellows were distributed broadly in every Vocational Education specialty area.[18] Unfortunately, few of the women in the program were able to benefit from the advice or example of women in leadership roles.

WOMEN AS LEADERS IN VOCATIONAL EDUCATION

During 1973-74, only one woman was a chief state school officer, Dolores Calberg, of Helena, Montana. There are no women among the State directors of Vocational Education at present. Six (12 percent) of the chairpersons of the State advisory councils for the 50 States and two of the executive directors are women.

The total current membership for the 56 State Advisory Councils for Vocational Education (including American Samoa, Guam, Puerto Rico, Virgin Islands, Washington, D.C., and Trust Territory of the Pacific Islands) is 1,180, with a range of membership from a low of 12 to a high of 44 and an

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18 Interview with Frank L. Perazzoli, Education Specialist, Vocational Education Personnel, Office of Education, Department of Health, Education, and Welfare, Washington, D.C., February 28, 1974.

average of 21 members. Advisory councils have the following representation: 28 percent from business and industry; 25 percent from State education agencies; 12 percent from labor; nine percent, organizations; four percent, teaching staff; and two percent are students. Women constitute 13.7 percent of the total membership. Six councils have no women and others have from one to eight.[19] Of the 22-member National Advisory Council on Vocational Education, four are women.

Women as a major force serving on boards of education have remained rather constant for 50 years. Women school board members are 10.1 percent of the current total; in 1922, the percentage was 10.5. Of that number, a slightly higher percentage of women had graduated from high school and had completed more education than male members. Yet, there is a commonly held view that too many women on the board is undesirable. The Northeast region of the United States has the highest percentage of women at 17.2 percent; the Pacific region has 16.4 percent; the Midwest has 9.8 percent women; the South, 9.6 percent; and the West, 8.6 percent.[20]

Of the 52 presidents of State boards of education (includes American Samoa, Guam, and Puerto Rico; Illinois has no State board) four percent are women. Thus, despite the pressure from women's organizations and Federal legislation to protect equal education and employment opportunities for women, the majority sex continues to be a very small minority on the major decision-making boards in education. Custom is likely to prevail, unless women organize their resources for inclusion among the top educational policy makers.

SUMMARY

Personnel throughout public education perpetuate sexism in many ways: by reflecting the bias of the society they serve, by offering inadequate vocational and career counseling, and by providing powerless female role models for young women. Teachers continue to breed conformity when social and economic success requires independence. Secondary counselors are more effective in academic than in vocational counseling and fail to provide girls with ample knowledge about careers and the wide range of jobs available in the world of work. While there is a preponderance of women teachers

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19 "State Advisory Councils for Vocational Education, Fiscal Year 1974," Mimeographed report, Washington: Division of Vocational and Technical Education, Office of Education, Department of Health, Education, and Welfare, February 26, 1974, p. 1.

20 "NSBA Study Shows School Board Quota System Discriminates Against Women," The School Administrator, May, 1974, p. 5.

in elementary schools, the higher the educational level, the fewer the women both in the classroom and in administrative positions. The few women who become principals are concentrated at the elementary level. Female teacher educators hold the lowest ranks in higher education. Thus, schools convince girls in a variety of ways that it's a man's world, and women have been rather ineffectual in doing much about it.

While women are 54 percent of the undergraduates in the five areas related to Vocational Education, they receive only 30 percent of the doctorates, mainly in home economics and nursing education. The EPDA program for leadership development in Vocational Education had a 39 percent female graduate enrollment. However, there were no female project directors, and only 16 percent of the advisory committee members were women.

Women are not represented in elective or appointive decision-making roles at the State or National level. There are no female State directors of Vocational Education. Only two of the 50 executive directors of State advisory councils, six of the 50 chairpersons of State councils, and only four of the 22-member National Advisory Council on Vocational Education are women. Vocational-Technical Education is surely a male dominated profession.

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AFFIRMATIVE ACTION FOR WOMEN IN EDUCATION AND EMPLOYMENT

Equal opportunity for female students and educators in Vocational-Technical Education has not been realized. This social injustice, with all of its ramifications, has been the subject of this report. The question now must be raised: What can be done to change pervasive discrimination against females throughout the Vocational Education system? Legal protection against sex discrimination, classified as "Affirmative Action," will be reviewed briefly as it affects girls and women in education and employment.

During the decade from 1962-1972, several laws were passed and Executive Orders issued to eliminate sex discrimination against women in employment and education. The first of these laws was the Equal Pay Act of 1963. The Civil Rights Act of 1964, Title VI and Title VII, was followed by the Age Discrimination Act of 1967. Executive Order 11246 was issued in 1965, and it was revised by President Nixon in 1971 by Executive Order 11375.

The most recent legislation amending the Fair Labor Standards Act of 1938 and Title VII was the Equal Employment Opportunity Act of 1972. Title IX of the 1972 Education Amendment to the Higher Education Act prohibits sex discrimination against students. Finally, Title VII (Section 799A) and Title VIII (Section 845) of the Public Health Service Act prohibit sex discrimination in employment and in student admissions in federally supported health training programs.

THE EQUAL PAY ACT OF 1963

The Equal Pay Act, an amendment to the Fair Labor Standards Act, resulted from the efforts of women's organizations, unions, and other interest groups. This act prohibits sex discrimination in the payment of wages for equal work on jobs requiring similar skills and responsibility and performed under similar working conditions. Equal pay for equal work also covers overtime and fringe benefits. In addition, the law prohibits employers from reducing the wages of any employee in an effort to equalize rates between the sexes. It also prohibits labor unions from causing an employer to discriminate against an employee by violating the equal pay provision.

The Equal Pay Act authorizes three methods for the recovery of back wages, if litigation is pursued. First, the Secretary of Labor may bring suit upon the written request of any employee. An employee may sue for back wages and an additional sum to cover legal fees and court costs. Or the Secretary of Labor may obtain an injunction to restrain any person from violating the law, including unlawful holding of proper wages.[1]

The Equal Pay Act prohibits the following kinds of gross discrimination against women:

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[1] Gloria Johnson, "Laws on Equal Education and Employment Opportunities for Women," Speech, Regional Seminar/Workshop on Women in the World of Work, Technical Education Research Centers, October, 1973, pp. 4-5.

- Denial of salary premiums to female teachers who coach teams
- Unequal fringe benefits
- Unequal salary scales for men and women researchers and administrators in colleges and universities
- Unequal entry salary for women college graduates hired for research, personnel, and administrative positions in institutions of higher learning
- Hiring only women at lower wage rates for jobs which may be performed by both sexes
- Paying lower salaries to women by claiming higher costs because of certain fringe benefits.[2]

The Equal Pay Act does not prohibit wage differentials based upon seniority systems, merit systems, or wage systems which measure earnings by quality or quantity of production.

The advantages to women of this act are these:

1. The act does not compete for attention regarding enforcement on the basis of race, color, religion, or National origin.
2. Complaint procedures are very informal. The Wage and Hour Division of the Labor Department will investigate any institution or company on the basis of a letter or telephone call or anonymous tip.
3. Complaints are treated in strict confidence and the name of the aggrieved worker does not have to be revealed, unless litigation becomes necessary.
4. Persuasion, mediation, and voluntary compliance are preferred to court suits and have been obtained in about 95 percent of the investigations.[3]

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[2] "Dushane Fund Reports." Washington: National Education Association, August 25, 1972, pp. 4-5.

[3] Johnson, op. cit., p. 5.

Since the law went into effect in 1964, $65,600,000 has been paid as settlement for underpayment to 142,000 employees, mostly women. Many of the Labor Department's suits under the Equal Pay Act have gained considerable attention. Yet, despite this protection, "Sex Discrimination Against the American Working Woman." a study by the Institute for Social Research, University of Michigan, reports:

> The average woman should have received 71 percent more than her current income to make her income equivalent to a man with the same scores on the achievement variables.[4]

On July 1, 1972, the Equal Pay Act was extended to executive, administrative, and professional employees and to outside sales personnel previously exempted. All employees of public and private educational institutions as well as non-supervisory and non-managerial employees in other organizations and industries now are protected under the law.[5] Under the Education Amendments of 1972 coverage was extended to professional employees such as personnel directors, counselors, attorneys, physicians, engineers, pharmacists, chemists, technicians, programmers, systems analysts, editors, and writers. Carin A. Clauss, Associate Solicitor in the Department of Labor, suggests, however:

> The biggest issue in the next year will probably be in the educational institutions. We know this is an area of mass violations.[6]

THE CIVIL RIGHTS ACT OF 1964

Title VI of the Civil Rights Act of 1964 prohibits discrimination by race, color, or National origin in educational programs receiving Federal funds. This legislation covers students and others. It is administered by the Office for Civil Rights, U.S. Department of Health, Education, and Welfare.[7]

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4 Ibid., P. 6.

5 Women's Bureau, "Brief Highlights on Major Federal Laws and Orders on Sex Discrimination," Washington: Women's Bureau, Employment Standards Administration, Department of Labor, June, 1973, p. 1.

6 Ibid., p. 6.

7 What is Affirmative Action? Washington: National Education Association, 1973, p. 10.

Title VII of the Civil Rights Act as amended by the Equal Employment Opportunity Act of 1972 forbids discrimination on the basis of race, color, religion, National origin, or sex in all aspects of employment by employers of 15 or more workers, by public and private employment agencies, and by public and private educational institutions. Excluded from the list of employers are Federal and District of Columbia agencies, Federal corporations, Indian tribes, State and local elected officials and their personal staff, and policy-making appointees. Religious educational institutions or associations are exempted with respect to the employment of individuals of a particular religion.[8]

The act specifically prohibits discrimination in hiring or firing; wages; fringe benefits; classifying, referring, assigning, or promoting employees; extending or assigning use of facilities; training, retraining, or apprenticeships; or any other terms, conditions, or privileges of employment.[9] This includes work assignments; sick leave, vacation, and overtime; insurance and health benefits; retirement; and advertising jobs by sex.

The following guidelines were added in 1972:

- Discrimination against married women

- Employment policies related to pregnancy and childbirth. Job applicants cannot be excluded because of pregnancy. Nor can women further be denied temporary leaves of absence designed for illness and accidents when the leave is for childbirth. They also must be guaranteed job reinstatement or accrued seniority rights.[10]

Charges may not be filed by women's rights organizations and others on behalf of aggrieved persons. However, the Equal Employment Opportunity Commission was given the power to institute lawsuits in Federal district courts in 1972. The Commission has developed a tracking system to determine priorities in the selection of companies and unions for litigation. All charges are grouped into four tracks. Tracks one and two designate large employers with National or regional operations and tracks three and four comprise all other respondents. Among the more famous suits settled was American Telephone and Telegraph, which was required to pay $15 million in back wages to women and minorities and grant annual wage increases totaling $38 million. Four other major companies, along with related unions, became targets for investigation: General Electric Company, General Motors

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8 Women's Bureau, op. cit., p. s.

9 Ibid.

10 Johnson, op. cit., p. 12.

Corporation, Ford Motor Company, and Sears, Roebuck and Company. In a lawsuit against the Cleveland Board of Education, the Sixth Circuit Court supported the constitutional right of a teacher to teach classes during pregnancy as long as it is determined medically that she is able, and to return to teaching as soon after childbirth as she is recovered and able.[11]

AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967

The Age Discrimination Act guarantees the employment of the older worker on the basis of ability to perform the job. The legislation affects industries in interstate commerce, employment agencies serving these employers, and labor organizations whose members are in industries affecting interstate commerce. The act protects employees 40 to 65 years of age from discrimination. Since many women remain at home until the last child is through school, they may not enter the work force until their late 40s. The act is particularly relevant to this group of women.

EXECUTIVE ORDER 11246

The late President John F. Kennedy signed Executive Order 11246, which became law September 24, 1965, requiring that all government contracts include provisions that the contractor will not discriminate against any applicant or employee because of race, color, religion, or National origin. Every institution which is awarded a Federal contract of $10,000 or more must agree not to discriminate. Each contractor employing more than 50 persons and whose contracts total $50,000 must have a written affirmative action program on file.

Affirmative Action

An affirmative action program is a set of specific and result-oriented procedures to which a contractor commits himself to apply every good faith effort. The objective of those procedures and efforts is equal employment opportunity.[12]

Affirmative action programs for women received additional impetus through Executive Order 11375, signed by President Nixon on April 26, 1971 to put an end to discrimination against women. The Order reads:

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11 Ibid., pp. 9 and 12.

12 Rosalind Loring and Theodora Wells, Breakthrough: Women into Management, New York: Van Nostrand Reinhold Company, 1972, p. 177.

To this end, I am now directing that you take the following actions:

- Develop and put into action a plan for attracting more qualified women to top appointive positions . . .
- Develop and put into action a plan for significantly increasing the number of women . . . in mid-level positions . . . This plan should directly involve your top personnel official.
- Ensure that substantial numbers of vacancies on your Advisory Boards and committees are filled with well-qualified women.
- Designate an overall coordinator who will be held responsible for the success of this project . . .[13]

The Department of Labor has the responsibility for enforcing these orders. Their Office of Federal Contract Compliance has spread the responsibility for monitoring to 15 other agencies which grant government contracts. The Compliance Office issued "Sex Discrimination Guidelines" and required affirmative action goals and timetables for increasing the numbers of women in job categories in which they are under-represented. The guidelines state that contractors may not advertise under male and female classifications; base seniority lists on sex; deny a job because of "protective" labor laws; distinguish between married and unmarried persons inequitably; or penalize women employees who require leave for childbearing. A leave of absence for childbearing must be guaranteed along with job reinstatement at the woman's former position and pay level without loss of service credit.[14]

As of December 4, 1971, Revised Order No. 4 required goals and timetables for women as well as minorities, and contractors were given 120 days to change their existing affirmative action plans. Among the conditions defined are the following:

1. Federal contractors or subcontractors must develop acceptable affirmative action programs for recruiting and utilizing women in all segments and at all levels of employment where deficiencies exist. The penalty is contract concellation and disbarment from future contracts.

2. The contractor must give special attention to setting goals which will utilize women as officials and managers, professionals, technicians, sales workers, and craftsmen.

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13 Betty E. Sinowitz, "New Legal Remedies for Women," Today's Education, December, 1972, p. 3.

14 Women's Bureau, op. cit., p. 3.

3. Underutilization of women or minorities in a job classification is expressly discouraged.

4. Contractors must encourage child care programs, which improve employment opportunities for women and minorities.

5. Contractors must initiate necessary remedial, job training, and work-study programs.

6. Contractors must establish formal career counseling programs which include:
   attitude development
   education aid
   job rotation
   buddy system or similar program.[15]

The Secretary of Labor has issued a memorandum which requires compliance agencies to follow a standardized evaluation procedure for reviewing contractors under Revised Order No. 4.

Many colleges and universities have been sued for back wages in class action suits in behalf of women faculty members. The compliance agency for Revised Order No. 4 has developed guidelines for the implementation of an affirmative action program.

> The Department of Health, Education, and Welfare, the compliance agency for colleges and universities with government contracts, has insisted that they submit a program outlining plans to combat past discrimination against and underutilization of women and minority persons.[16]

The Carnegie Commission on Higher Education made the following recommendation in its report, Opportunities for Women in Higher Education:

> Colleges and universities should take especially vigorous steps to overcome a pervasive problem of absence of women in top administrative positions. Women should be given opportunities by their departments to serve as department chairmen because academic administrators are usually selected from among persons who have served ably as department chairmen. Most important is an administrative

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15 Johnson, op. cit., p. 14.

16 Sinowitz, op. cit.

> stance that is highly positive toward providing opportunities for women to rise in the administrative hierarchy.[17]

To date, guidelines have not been released by the HEW compliance agency for public school systems.

> School systems that are recipients of Federal contracts have not been asked to submit affirmative action plans to date. They are, however, required to comply with non-discriminatory funding agency rules regarding admission and hiring of women and minorities.[18]

It has been suggested that pressure from educational organizations, women's groups, and women's educational organizations will force such guidelines. Before regulations are defined, public school systems employing 50 or more staff persons and receiving federal Funds of $50,000 or more ought to give serious consideration to voluntary development of affirmative action plans.

> The education profession needs to put pressure on HEW to include in its budgetary requests the necessary staffing for compliance review of elementary and secondary school systems which receive Federal contracts. These employers must analyze staff to decide whether women--and minority persons--are being underutilized and to establish goals and timetables for correcting deficiencies.[19]

The development of guidelines for public schools to implement affirmative action plans ought to be pursued speedily.

> The lengthy delays that have sometimes characterized HEW procedures, on the one hand, and the prolonged delays that have been involved in the development or implementation of adequate affirmative action plans

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17 "Carnegie Proposals on Women in Higher Education," The Chronicle of Higher Education, September 24, 1973, p. 8.

18 Ibid.

19 Ibid.

by institutions on the other, are equally unwise and should be avoided in the future.[20]

Without organized efforts to halt discrimination against women educators through pressure for guidelines and plans for their implementation under Executive Order 11375, women will continue to be denied equal access to jobs, pay, promotion, and other opportunities for employment in public education.

TITLE IX OF THE EDUCATION AMENDMENTS OF 1972

Title IX of the Education Amendments of 1972 states:

> No person in the United States shall, on the basis of sex, be excluded from participating in, be denied the benefits of or be subjected to discrimination under any education program or excluded from actively receiving Federal financial assistance.

This law applies to all public pre-schools, elementary and secondary schools, Vocational Education institutions, undergraduate, graduate, and professional institutions, as well as many private schools. However, training academies for the United States military service and merchant marine are exempted as well as certain religious educational institutions. Those colleges and universities which have an established policy of admitting only one sex also are excluded along with private undergraduate colleges. HEW has compliance control over admissions, programs, assignments, and staff employment practices in institutions included under Title IX. The penalty for non-compliance after proper legal procedures is the cut-off of Federal funds.

Recent guidelines from the U.S. Office of Health, Education, and Welfare prohibit sex-segregated courses, such as homemaking and industrial arts, and public and vocational schools will have until fall 1975 to implement change.[21]

Title IX has potential as a legal weapon against sex discrimination in scholarships and professional schools. Before Title IX, colleges and universities controlled student aid programs. A new Federal scholarship program, the Basic Opportunity Grant, which can provide a needy student with annual stipends up to $1,400, will be controlled by the U.S. Office of Education.[22]

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20 Ibid.

21 Eileen Shanahan, "H.E.W. Proposes Rules to Outlaw School Sex Bias," The New York Times, June 19, 1974, p. 1.

22 Johnson, op. cit., p. 16.

The distribution of athletic "scholarships" has been highly discriminatory. It has been estimated that about 50,000 American men earn a college education through an athletic scholarship compared with fewer than 50 women.[23] In fact, inequality in athletic programs for women has been a main cause for HEW's deferral of Federal funds to several universities submitting inadequate affirmative action plans.

The greater impact of Title IX may be in opening up admissions in professional schools to women. At the present time, women are seriously under-represented. Many more women now are likely to be enrolled in professional schools of nursing, medicine, law, and engineering.

Title IX of the Education Amendments of 1972 has potential for eliminating sex bias in admissions, programs, and staffing patterns in public schools, vocational schools, and higher education. It should help to eradicate sex-segregated classes and policies and practices which deny young women access to male-dominated vocational programs in secondary, post-secondary, and higher education institutions.

TITLE VII AND TITLE VIII OF THE PUBLIC HEALTH SERVICE ACT

The Comprehensive Health Manpower Training Act and the Nurse Training Amendments Act of 1971 amended Title VII (section 799A) and Title VIII (section 845) of the Public Health Service Act. The Act prohibits sex-discriminatory admissions practices in federally assisted health training programs. Personnel who work with applicants or students also are protected against sex discrimination in employment.[24]

SUMMARY

Several Federal laws and Executive Orders have been passed since 1972 to protect women from discrimination in employment and education. The Equal Pay Act of 1963 prevents sex discrimination in the payment of wages for equal work and in overtime and fringe benefits. Title VII of the Civil Rights Act of 1964 forbids discrimination in public and private companies and educational institutions employing 15 or more workers. The law applies to hiring or firing, wages, fringe benefits, assignment, promotion, working conditions, and employment privileges. The Age Discrimination Act of 1967 prohibits discrimination against the capable older worker by industries in

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23 "Few Women Aided," The Flint Journal, May 17, 1974, p. C-9.

24 "What is Affirmative Action?" op. cit., p. 11.

interstate commerce and by employment agencies and labor organizations serving such industries. Executive Order 11375, a revision of Executive Order 11246, requires that a government contractor employing 50 persons or more and whose contract totals more than $50,000 must have a written affirmative action program on file. Title IX of the Education Amendments of 1972 prevents all public and many private educational institutions from discriminating against women in admissions, Federal financial assistance, assignment, and staff employment practices. Recent guidelines from the U.S. Office of Health, Education, and Welfare prohibit sex-segregated courses. Title VII of the Public Health Service Act prevents sex discrimination in admission practices and employment in federally assisted training programs for health personnel.

Thus, female students and employees legally are protected from the kinds of discrimination described in this report. However, greater public awareness of this pervasive problem must be gained if the laws are ever to be strictly enforced. (Appendix A contains a list of Federal compliance agencies which have issued affirmative action regulations and guidelines.)

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IMPLICATIONS FOR CHANGE IN
VOCATIONAL-TECHNICAL EDUCATION

SUMMARY OF SEXISM IN SCHOOL AND SOCIETY

The years a woman spends in raising children are supposed to fulfill the purpose of her entire life. This is the traditional course that circumscribes women's lives. The biologically-fixed female function of childbearing and rearing serves to limit her opportunities in society, in the world of work, and in education. Men are the bread-winners and women are the homemakers. These are the role models that are repeated by men and women everywhere in our society. But the model is no longer real or appropriate. With women comprising two-fifths of the work force today, they no longer are limited to a single role. Unfortunately, the vision of educators still is clouded with the one-option-world for women, and education exhibits restraint in opening all programs to girls and women.

The Pyramid of Educational Organization

The educational organization is a pyramid dominated by men. The foundation is composed of a female instructional staff mainly working with youngsters in elementary school. In the junior high school, women teachers decrease in numbers. By senior high school, women teachers are reduced to a minority. The minority is further reduced to 20 percent in higher education, where female full professors are few. Most women administrators are either elementary principals or middle management central office staff. They comprise a minority of junior high school principals, an insignificant number of senior high school principals, and only 0.01 percent of superintendents.

Women on boards of education have occupied one-tenth of the elected slots consistently over the last fifty years. In higher education, female administrators are deans in home economics, library science, or health occupations. The women near the president's office are relative newcomers in powerless slots designed to appease the head counters in the Affirmative Action Office.

Female Options and Occupational Choices

Girls are treated from early infancy to adulthood as if they were created out of weaker materials and are conditioned at home and at school to be quiet and passive. Unfortunately, the behavioral traits needed for success in our economy are assertiveness and ego strength. While girls are rewarded in the classroom, their future options are restricted. This is most blatant when, in junior high school, girls are assigned to home economics rather than industrial arts, a practice which reinforces the traditional female role. Consequently, girls are denied the opportunity to learn carpentry, woodworking, and simple repair skills and boys are denied the opportunity to learn nutrition, health care, and household tasks.

At the junior high school level, students are introduced to a wide range of occupations through exploratory activities. Neverthless, most

girls decide to enter homemaking, office, or health programs, as evidenced in secondary vocational enrollments. The fact that girls are clustered in acceptable female occupations suggests that counselors, staff, and parents fail to encourage them to explore other career alternatives.

Vocational Education students in general have a limited awareness of the world of work, because most of their learning occurs in the classroom or shop. Only eight percent of all secondary vocational students were enrolled in cooperative work programs. Distributive education provides cooperative work experience for 24 percent of all enrollees, the highest percentage for any occupational area. Unfortunately, health occupations enroll only five percent, gainful home economics enrolls six percent, and office enrolls only four percent in cooperative programs.[1]

Girls who drop out or graduate from high school without a skill have very limited alternatives: an entry job with low pay, economic dependence, or continued education. Many female vocational students who graduate with saleable skills are almost as limited. If they seek better paying jobs, they must turn to industry. However, the unions have perpetuated employment standards that not only have "protected" women, but also have restricted many of them from employment. Unions, like management, tend to be male strongholds, and they are not likely to be concerned about increasing employment opportunities for women, especially if it may result in reducing employment opportunities for men. If they choose post-secondary education, they will find other young women concentrated in the technical training programs of shortest duration or in health and office occupations.

The more education women complete, the better their earning power and promotional opportunities. Yet, women in colleges and universities are concentrated in education--a field in which the numbers of jobs are decreasing. Women dominate bachelor's and master's programs in education but have a majority of doctorates only in home economics. Even in female strongholds of potential employment, few women seek higher degrees.

Our society has a narrow view of appropriate jobs for women. Moreover, the jobs pursued by the majority of women are held in low esteem. School programs continue to limit girls' awareness of a wide range of employment opportunities, even though many women must either support themselves and their families or be supported by welfare.

The schools limit girls' career choices by using sexist textbooks and curricula materials, counseling girls to enter traditional occupations,

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[1] Arthur M. Lee and Robert Sartin, Learning a Living Across the Nation, Project Baseline, Second National Report, Vol. 2, Flagstaff: Northern Arizona University, November 1973, pp. 5 and 79.

and restricting the number of female role models in power positions. Vocational-Technical Education is segregated from junior high school through post-secondary education. The statistics are not likely to change soon, because women are not in decision-making roles in significant numbers either on State or National advisory or policy boards. The world of work is a man's world and will be for some time to come, unless there is change.

NEEDED CHANGES

Societal Change

Pressure for societal change must emanate from organized efforts. Women's pressure groups like the National Organization for Women (NOW) have been very successful in pressing for equal opportunities for women in employment and education. Civil rights staff have expressed amazement at the speed with which the Equal Rights Amendment and the issue of equal rights for women in general have gained social recognition. The first public demonstrations took place in 1968, and class action suits against major universities and corporations have resulted in the payment of millions of dollars in back pay due women employees who suffered the injustice of sex discrimination.

The primary influence for change in our society is the media, bringing instant worldwide news into millions of homes. Yet, discrimination against women is pervasive in television programming, advertising, and newscasting. More women on the screen and behind the scenes--cinematographers, editors, lighting and sound technicians--can contribute to greater equality. The whole field of radio and telecommunications could provide dramatic opportunities to women with vocational-technical skills. Journalism has been a relatively open field for women. However, there are few women involved in photography, graphics, or printing. Because newspapers and magazines continue to be a major influence on public opinion, women need to learn to use the media for social change.

Women's groups must continue to initiate research, gather statistics, document the facts, develop political skills, initiate law suits, and implement needed programs in an effort to open up a multi-option world for women. Women in the unions, especially the new Coalition for Labor Union Women, can make a decided impact on women's income by working to open up higher paying industrial occupations to women. The numbers of women in apprenticeship programs are few because male unionists have excluded them. If women are to improve their earning power, they must break out of low-paying jobs and enter the skilled trades and crafts.

Enforcing the Law

New HEW guidelines for enforcement of Title IX of the Education Amendments of 1972 have been released. The importance of these guidelines as potential tools to resolve issues raised by this report is great. Segregated classes are illegal, and schools have one year to integrate classes, except for units on sex education. In Vocational Education, homemaking will have to broaden its appeal to secure voluntary male enrollments. State requirements for specific performance competencies in home economics and con-

sumer education would hasten an increase in male enrollments in those courses. All vocational-technical programs will have to give evidence of increasing numbers of enrollees of both sexes. This should result in opening up the skilled crafts and operatives occupations and sciences and engineering technologies to women.

An alternative to desegregation of single programs is the combination of complementary female/male courses taught by teams of female/male teachers. Where good reason exists to broaden the content of the vocational program, this may prove to be not only the simpler process, but also may enrich learning. Junior high schools which have integrated gym classes and combined home economics and industrial arts have reported good results. Teachers have improved the relevance of program content, and "mixed" classes have sparked the interest of female and male students.

Title IX also supports similar spending on programs for both sexes. The discrepancies in expenditures between female- and male-dominated Vocational-Technical Education programs probably result from the higher expense involved in skill and technical training and the smaller class size in male-intensive courses. More equitable spending will reduce the student/teacher ratio in predominantly female programs, improve the quality of instruction, and upgrade the curriculum.

Title IX also will equalize opportunities for scholarships and admission, thus encouraging more women to seek education beyond high school.

Executive Order 11375 will continue to serve as the legal tool for increased representation of women among the ranks of instructional staff and administrators in higher education. The same principle should apply to the vocational schools and area skill centers.

Women's groups must continuously review local public school employment statistics and pressure for the implementation of affirmative action plans for women and minorities at the secondary level. HEW must issue workable guidelines on the employment of women in Vocational Education based on Executive Order 11375. Women themselves, especially women educators, may have to organize pressure groups in order to achieve the release of needed guidelines.

Educational Administration

Obstacles to equality for women start at the bottom of the educational pyramid, elementary school, where the majority of women teachers and administrators are concentrated. Solutions must originate at the top, in university departments of school administration, which bear the responsibility for preparing greater numbers of women for decision-making positions. Until female administrators increase throughout all levels of the school system. there will be few significant changes for young women in general ano Vocational-Technical Education.

Universities must hire administrators to serve as models for aspiring women teachers. In addition, women must be hired to teach administration and those vocational-technical courses with largely male en-

rollments. Female enrollments in dotoral programs of administration must be expanded; in 1970-71, 875 doctoral degrees were conferred on men and only 82 upon women. In fact, women must be recruited into all male-intensive vocational graduate programs in order to increase the supply of females qualified to serve as vocational administrators, as professors of Vocational Education, and as staff of post-secondary technical institutes and community colleges. The current paucity of female administrators will remain until universities demonstrate by their admissions, employment, and promotion policies that they support the advancement of women. Female candidates should be encouraged to enroll at such universities, complete graduate requirements, and apply for jobs in influential administrative posts.

The power figure in public education is usually the superintendent. Significant numbers of women must be trained and hired as superintendents of schools. Once there is a larger pool of qualified women with doctorates in administration, more women should be employed either as principals or as executive staff in central administration in order to acquire knowledge and experience for the superintendency. Such appointments probably would require increasing numbers of women on policy boards that employ the administrative staff of the schools.

The Policy Makers

The paucity of women in administration, from universities to local public schools, corresponds to the paucity of females in State leadership positions. Vocational-Technical Education is a power base for male educators, despite the fact that the majority of enrollments are female. Unless strong action is taken, power will remain with men. Only one of fifty chief State school officers is a woman. There are no women State directors of Vocational Education. There are two female executive directors among the State advisory councils. Six of the chairpersons are female. And only 14 percent of the members of all State advisory councils are women.

The U.S. Office of Education has an obligation to enforce Title IX by issuing guidelines requiring equal representation on all policy boards. Presently, the National Advisory Council on Vocational Education has four women on a 22-member board.

Thirty-nine percent of the EPDA interns were women, much to the credit of the program. However, there were no female project directors, and only 17 of the 107 members of the advisory committee were women. If a similar program is instituted again, half of the project directors ought to be women. Their concern probably would equalize internships, thus qualifying greater numbers of women for leadership roles.

Teacher Education

Departments of curriculum within colleges of education must prepare future developers to desegregate the curriculum, feminized in elementary school and masculinized in secondary school. Male and female teachers need to be trained to eliminate sexism, which is harmful to male and female alike and destructive to their individual growth and development. Twenty-five percent of the doctorates in curriculum and instruction in

1970-71 were granted to women, a considerable improvement over educational administration, but still insubstantial. In 1970-71, of the 287 doctorates granted in Vocational-Technical Education areas, 30 percent were conferred on women. Twenty-seven were granted in home economics education. Women must be encouraged to seek higher degrees, especially in nontraditional fields of instruction.

Inservice Education

Staff who prepare future educators are in need of retraining to create awareness of sexism in schools, society, and employment. Inadequate programs of teacher preparation perpetuate the status quo both in public schools and in universities. Teachers tend to teach as they were taught, contributing to the continuation of outmoded instruction which has little relevance to the world of work and contemporary life. While Federal funds have prompted some inservice training programs for public school staff, little organized effort has been undertaken to retrain teacher educators.

Vastly expanded programs of continuing inservice training are needed to change impractical content and methods which "turn off" students, encourage boys to drop out, and discourage girls from seeking employment in jobs other than office work, health, and teaching. An annual, daylong, inservice program cannot stimulate behavioral change. Educators must be sufficiently motivated to want to change their teaching methods and techniques. They need to see themselves as students see them. Video-taping can expand self-perception and provide the opportunity to try out new forms of teaching behavior. Continuous reinforcement from inservice consultants and teacher-partners in the retraining process promise to fill teachers' needs for lifelong learning experiences and growth. Inservice training is expensive, but poorly educated men and women who cannot survive in the economic mainstream because they lack the job skills to support themselves are an even greater expense.

Counselors

Perhaps more than other educators, counselors have received a barrage of complaints from a dissatisfied public, first from minorities and then from women. However, counselors continue to have an academic orientation and demonstrate greater knowledge about higher education than the many occupations available in the world of work. Counselors need ongoing inservice training to increase their scope. Practical work experience also would be helpful to improve their awareness of job requirements and new career opportunities.

Counselors especially should encourage female students to explore those emerging fields which have not been labeled as male or female occupations. Market research, computer programming, systems analysis, and urban planning are all relatively new fields with projected annual openings

ranging from 750 jobs in urban planning to 34,700 in programming.[2] The largest growth is expected in professional and technical occupations, with an estimated increase of 39 percent. Girls should be advised, on the basis of interest and aptitude, to explore those fields in which women are under-represented: drafting, engineering, and science techologies[3] and the skilled trades and services, including plumbing and pipefitting.[4]

Counselors ought to do more than counsel students about academic and occupational goals. The also must be prepared to help students with personal problems when such help is sought. Counselors are in a central position to establish direct working relationships with social agencies, to refer students to such agencies, and to follow up referrals to determine whether student problems were resolved. Counselors can be helpful to potential dropouts, deliquents, and pregnant teenagers. They may help these students to identify options, arrange for special programs and services, and serve as a liaison between the school, home, psychiatric and drug treatment centers, law enforcement and other social agencies.

The Vocational-Technical Education Program

Schools reflect society, but through programs for the world-as-it-was at least a decade ago. Programs designed to meet the priorities of the 1960s are being implemented by the schools of the 1970s. The time lag is diminishing, however, as a result of improved communications. Although it may take several years before traditional programs and practices can respond to today's needs and have an impact on young women, strategies for change must be initiated.

Vocational-Technical Education affords girls limited options in training and, thus, in the world of work. These limits are imposed by society, employers, and unions which close off operative and skilled crafts jobs to women.

Historically, Vocational-Technical Education developed from a 1917 "male-world-of-work model" and "female-world-of-home model," which set the pattern for future enrollments. Most girls have been steered into non-wage-earning homemaking programs for over 50 years. Despite the fact that more women must work today than ever before, girls are being prepared for low-paying, dead-end jobs. Even at the technical level, young women are concentrated in short-term training programs. There is a broader distribution of female enrollments in secondary vocational schools than in post-secondary institutions. In fact, the higher the educational level, the fewer the women.

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2 Women's Bureau, Careers for Women in the 70's, Women's Bureau, Employment Standards Administration, Department of Labor, Washington: U.S. Government Printing Office, 1973, p. 2.

3 Ibid., pp. 3-4

4 Ibid., p. 8.

Title IX of the Education Amendments of 1972 should result in major changes in Vocational Education. Because of the rigid patterns of sex-segregated classes, planning ought to begin immediately to enroll young women and men in non-traditional occupations at all educational levels.

Home Economics and Consumer Education

Change from the traditional curriculum is imperative in home economics and consumer education. Performance-based competencies must be identified to enable young men and women to survive socially and economically. Knowledge of nutrition and health care, personal money mangement, and conserving should not be limited to one sex.

With the current emphasis on the quality of life, home and family assume great importance. Too much of education has excluded the social sciences--especially human relations, the development and care of children, responsible parenthood, and the development for more effective living of personal and social values. Family health care and family planning information ought to be included in senior high school classes.

> In the age group 18 to 24 years of age, about one out of four young people is already overextended in his (her) credit obligations and for those in this age group who already have some form of installment credit, one out of every three is likely to be overextended.[5]

Despite the availability of television in virtually every home, educators are not taking advantage of the untapped potential of this medium for education. With the development of the home as a learning center for every member of the family, especially those who are homebound, homemaking, parenthood, money management, and employability skills can be taught through TV, cassettes, or programmed materials.

To foster equality in schools and, later, in the home, home economics should be merged with industrial arts and certain trade and industrial courses to provide a more comprehensive program for females and males. Curriculum and methodology and team-teaching approaches will have to be developed. Male vocational teachers have an obligation to change their attitudes toward females in classes. Increasing attention ought to be given to expanding occupational home economics, with career ladders planned for upward mobility affording students greater opportunities in the world of work.

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5 Mary E. Ryan, An Analysis of Economic and Demographic Characteristics of Consumers Associated with Excessive Installment Debt, Master's Thesis to Graduate School of the University of Minnesota, published by the Federal Reserve Bank of Minneapolis, Minnesota, July, 1968, Tables 4, 3, 31.

Work Experience and Apprenticeship

With the expansion of community education as a link between home, school, and community, vocational-technical institutions should take fuller advantage of the resources in their localities. The eight percent enrollment in cooperative programs is disturbingly low, especially when the opportunities are available. Most students learn more easily and thoroughly through practical "hands on" experiences. Work experience opens doors to opportunity for students and creates better employees upon job entry.

Advisory committees for every program in Vocational-Technical Education benefit the schools in many ways, one of which is the establishment of a regular communications link between school and business and industrial representatives who, as potential employers, keep students and educators aware of trends and changes in the local labor market. School staff responsible for job development and placement ought to work closely with advisory committees in improving employment opportunities for women. In fact, half the members should be representative women from the local work force. Just as Vocational Education must qualify more women for nontraditional jobs, they must develop strategies to convince local employers to accept young women for on-the-job training, hire, and promote them.

Options for Pregnant Teenagers

Programs for pregnant teenagers should be mandated for public schools. State departments of Vocational Education are in a prime role to prevent the needless heavy caseloads of social service agencies responsible for aiding pregnant teenagers and unwed mothers who are unskilled and unemployable. Public schools and vocational schools should expand the options for teenage mothers by keeping them in school, offering special programs in nutrition and child care, career counseling, and intensive occupational training. The pregnant teenager is a prime candidate for career education. She has a greater need for short-term skill development than any other student, because she has two to consider in the immediate future.

Special services for pregnant girls should include prenatal care as well as day care later on. The options of special education programs and adult education programs are desirable alternatives for pregnant girls. Regular consumer and homemaking classes in nutrition, health, and child care also provide skills essential to the well-being of young mothers. But unless job training is provided, offspring of unemployed mothers are likely to become AFDC recipients. Vocational Education is in a position to prevent the hopeless cycle of poverty.

Day Care

Continuing day care centers with flexible hours are needed for young mothers. An increasing number of businesses and hospitals are providing day care services for their staffs. The possible development of industrially-based day care centers for the children of working parents may become a reality, if women workers pressure for such an arrangement. Possible alternatiyes to day care include flexible working hours and in-

creased part-time employment for women. Such proposals are being considered by Congress. The only other alternative for mothers without any means of support is welfare.

The world of work is a man's world, but if changes are to come in programs preparing students for the work force, women will have to care enough to lead the way.

Women teachers and the few women in administration and policy positions in Vocational Education are the logical staff to gather the facts and pressure for change on behalf of a fairer, more equitable system. Yet, in view of the legislative mandate that Vocational Education provide a variety of education and training programs for persons of all ages, especially those with special needs--and it is plausible to consider women as a less advantaged, disenfranchised group--all vocational educators who recognize the potential social and economic impact of Vocational Education cannot continue to ignore the needs of half their students.

Once educators eradicate sex stereotyping in the schools, girls and boys will have greater freedom in choosing satisfying careers and life roles. The humanization of our institutions should lead to a society in which women and men may become whole, self-realized persons.

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Appendix A
Availability of Regulations and Guidelines for Affirmative Action

APPENDIX A

Availability of Regulations and Guidelines for Affirmative Action

1. Equal Pay Act of 1963

Contact:

Wage and Hour Division
Employment Standards Administration
Department of Labor
Washington, D.C. 20120

2. Title VI of the Civil Rights Act of 1964

Contact:

Office for Civil Rights
Department of Health, Education, and Welfare
Washington, D.C. 20201

3. Title VII of the Civil Rights Act of 1964

Contact:

Equal Employment Opportunity Commission
1800 G Street, N.W.
Washington, D.C. 20506

4. Executive Order 11246 as amended by 11375

Contact:

Office of Federal Contract Compliance
Employment Standards Administration
Department of Labor
Washington, D.C. 20210

5. Title IX of the Education Amendment of 1972

Contact:

Office for Civil Rights
Department of Health, Education, and Welfare
Washington, D.C. 20201

6. Title VII and Title VIII of the Public Health Service Act

Contact:

Office for Civil Rights
Department of Health, Education, and Welfare
Washington, D.C. 20201[1]

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[1] What is Affirmative Action? Washington: National Education Association. 1973.

☆U.S. Government Printing Office: 1975 - 684-264/18, Region No. 9-I

BIOGRAPHICAL SKETCH OF THE AUTHOR

Marilyn Steele, Director of Planning and Community Activities for the Charles Stewart Mott Foundation of Flint, was reared in Albion, Michigan, and educated at Albion College where she was a member of Phi Beta Kappa and Alpha Xi Delta. She is married to Tom C. Steele and the mother of Mary Frances, 19, and Charles, 16. She completed her master's degree from the University of Michigan in 1961 and taught and counseled high school students for 16 years at Flint Northern High School. She was awarded both a Mott Fellowship and a Delta Kappa Gamma scholarship to complete requirements for a doctor of philosophy degree from Michigan State University in 1969.

Dr. Steele is a consultant in planning and evaluation and has served on community education evaluation teams in Wilmington, Delaware, 1969 and 1971; Hazel Park, Michigan, 1970; Grand Rapids, Michigan, 1973; Tennessee Valley Authority project with Southern Regional School Boards Association, 1973; as well as Regional Centers for Community Education at Arizona State University, Alma College, Eastern Michigan University and Ball State University.

Dr. Steele is a lecturer and writer in the women's movement. She served as the keynote speaker at the First Women's Caucus, National Education Association, 1971. Publications include "Career Education for Women" in Minorities and Career Education, Laurence Davenport and Reginald Petty, ed., Columbus, Ohio; House of Harnesworth, 1973; "On Women Becoming Education," The Delta Kappa Gamma Bulletin, Spring, 1972; Michigan's Minorities at the Mid-Seventies: Indians, Blacks, Chicanos, Flint, Michigan: Charles Stewart Mott Foundation, 1974, Walter Langs, Jr., co-author; "Women: The Universalizers," Papers in Women's Studies, University of Michigan, Fall, 1974.

Current memberships and offices include AASA; Council of Educational Facility Planners, International, Board of Directors; Delta Kappa Gamma, Co-Chairperson State Affirmative Action Committee, Chairperson, Scholarship Committee; Genesee County Regional Drug Abuse Commission, Chairperson, Planning and Evaluation Committee; Citizens Committee for Comprehensive Health Plan, State of Michigan; NEA; National Community Education Association; Trinity United Methodist Church, Chairperson, Council on Ministries.